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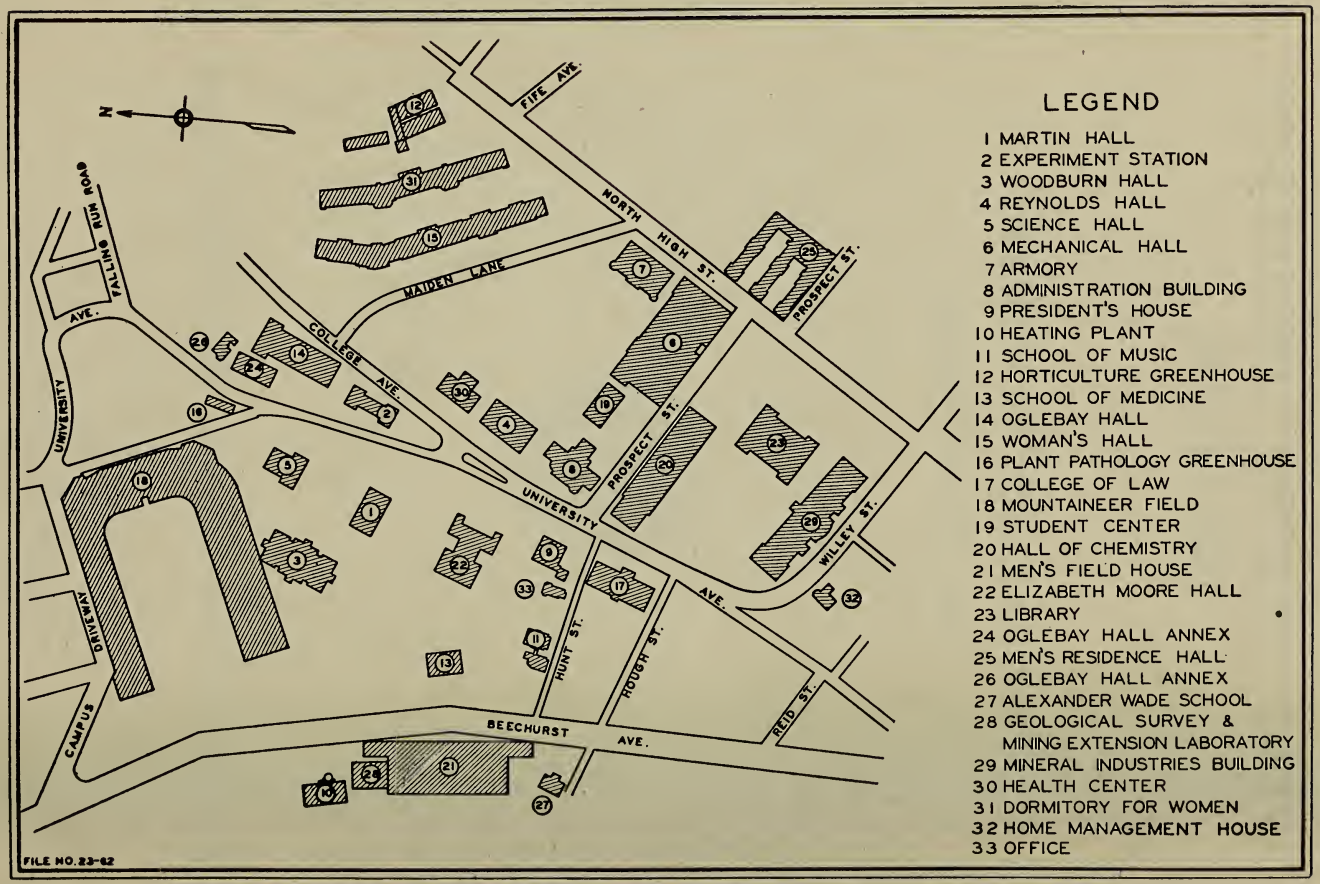
# WEST VIRGINIA UNIVERSITY BULLETIN

✦

## THE CATALOGUE NUMBER
## The 1944-45 Session

## Announcements of the 1945-46 Session

May 1945
MORGANTOWN, WEST VIRGINIA
Published by the University




## LEGEND

1 MARTIN HALL
2 EXPERIMENT STATION
3 WOODBURN HALL
4 REYNOLDS HALL
5 SCIENCE HALL
6 MECHANICAL HALL
7 ARMORY
8 ADMINISTRATION BUILDING
9 PRESIDENT'S HOUSE
10 HEATING PLANT
11 SCHOOL OF MUSIC
12 HORTICULTURE GREENHOUSE
13 SCHOOL OF MEDICINE
14 OGLEBAY HALL
15 WOMAN'S HALL
16 PLANT PATHOLOGY GREENHOUSE
17 COLLEGE OF LAW
18 MOUNTAINEER FIELD
19 STUDENT CENTER
20 HALL OF CHEMISTRY
21 MEN'S FIELD HOUSE
22 ELIZABETH MOORE HALL
23 LIBRARY
24 OGLEBAY HALL ANNEX
25 MEN'S RESIDENCE HALL
26 OGLEBAY HALL ANNEX
27 ALEXANDER WADE SCHOOL
28 GEOLOGICAL SURVEY & MINING EXTENSION LABORATORY
29 MINERAL INDUSTRIES BUILDING
30 HEALTH CENTER
31 DORMITORY FOR WOMEN
32 HOME MANAGEMENT HOUSE
33 OFFICE

MAP OF THE CAMPUS

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# YEAR 1945

### JANUARY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | **1** | **2** | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | **22** | 23 | 24 | 25 | 26 | 27 |
| **28** | 29 | 30 | 31 | | | |

### FEBRUARY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| **4** | 5 | 6 | 7 | 8 | 9 | 10 |
| **11** | 12 | 13 | 14 | 15 | 16 | 17 |
| **18** | 19 | 20 | 21 | 22 | 23 | 24 |
| **25** | 26 | 27 | 28 | | | |

### MARCH

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| **4** | 5 | 6 | 7 | 8 | 9 | 10 |
| **11** | 12 | 13 | 14 | 15 | 16 | 17 |
| **18** | 19 | 20 | 21 | 22 | 23 | 24 |
| **25** | 26 | 27 | 28 | **29** | **30** | **31** |

### APRIL

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| **1** | **2** | 3 | 4 | 5 | 6 | **7** |
| **8** | **9** | 10 | 11 | 12 | 13 | 14 |
| **15** | 16 | 17 | 18 | 19 | 20 | 21 |
| **22** | 23 | 24 | 25 | 26 | **27** | 28 |
| **29** | 30 | | | | | |

### MAY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| **6** | 7 | 8 | 9 | 10 | 11 | 12 |
| **13** | 14 | 15 | 16 | 17 | 18 | 19 |
| **20** | 21 | 22 | 23 | 24 | 25 | 26 |
| **27** | 28 | **29** | **30** | **31** | | |

### JUNE

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | **1** | **2** |
| **3** | 4 | 5 | 6 | 7 | 8 | 9 |
| **10** | 11 | 12 | 13 | 14 | 15 | 16 |
| **17** | 18 | 19 | 20 | 21 | 22 | 23 |
| **24** | 25 | 26 | 27 | 28 | 29 | 30 |

### JULY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | **6** | 7 |
| **8** | 9 | 10 | 11 | 12 | 13 | 14 |
| **15** | 16 | 17 | 18 | 19 | 20 | 21 |
| **22** | 23 | 24 | 25 | 26 | **27** | 28 |
| **29** | 30 | 31 | | | | |

### AUGUST

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 |
| **5** | 6 | 7 | 8 | 9 | 10 | 11 |
| **12** | 13 | 14 | 15 | 16 | 17 | 18 |
| **19** | 20 | 21 | 22 | 23 | 24 | **25** |
| **26** | 27 | **28** | **29** | **30** | **31** | |

### SEPTEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | | 1 |
| **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| **9** | **10** | 11 | **12** | **13** | 14 | 15 |
| **16** | 17 | 18 | 19 | 20 | 21 | 22 |
| **23** | 24 | 25 | 26 | 27 | 28 | 29 |
| **30** | | | | | | |

### OCTOBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| **7** | 8 | 9 | 10 | 11 | 12 | 13 |
| **14** | 15 | 16 | 17 | 18 | 19 | 20 |
| **21** | 22 | 23 | 24 | 25 | 26 | 27 |
| **28** | 29 | 30 | 31 | | | |

### NOVEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| **4** | 5 | 6 | 7 | 8 | 9 | 10 |
| **11** | 12 | 13 | 14 | 15 | 16 | 17 |
| **18** | 19 | 20 | 21 | **22** | **23** | **24** |
| **25** | 26 | 27 | 28 | 29 | 30 | |

### DECEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | | **1** |
| **2** | 3 | 4 | 5 | 6 | 7 | 8 |
| **9** | 10 | 11 | 12 | 13 | 14 | **15** |
| **16** | 17 | 18 | 19 | 20 | **21** | **22** |
| **23** | **24** | **25** | **26** | **27** | **28** | **29** |
| **30** | **31** | | | | | |

# YEAR 1946

### JANUARY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | **1** | **2** | 3 | 4 | 5 |
| **6** | 7 | 8 | 9 | 10 | 11 | 12 |
| **13** | 14 | 15 | 16 | 17 | 18 | 19 |
| **20** | 21 | 22 | 23 | 24 | 25 | 26 |
| **27** | **28** | 29 | 30 | 31 | | |

### FEBRUARY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | 1 | 2 |
| **3** | 4 | 5 | 6 | **7** | 8 | 9 |
| **10** | 11 | 12 | 13 | 14 | 15 | 16 |
| **17** | 18 | 19 | 20 | 21 | 22 | 23 |
| **24** | 25 | 26 | 27 | 28 | | |

### MARCH

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | 1 | 2 |
| **3** | 4 | 5 | 6 | 7 | 8 | 9 |
| **10** | 11 | 12 | 13 | 14 | 15 | 16 |
| **17** | 18 | 19 | 20 | 21 | 22 | 23 |
| **24** | 25 | 26 | 27 | 28 | 29 | 30 |
| **31** | | | | | | |

### APRIL

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| **7** | 8 | 9 | 10 | 11 | 12 | 13 |
| **14** | 15 | 16 | 17 | **18** | **19** | **20** |
| **21** | **22** | **23** | **24** | 25 | 26 | 27 |
| **28** | 29 | 30 | | | | |

### MAY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 |
| **5** | 6 | 7 | 8 | 9 | 10 | 11 |
| **12** | 13 | 14 | 15 | 16 | 17 | 18 |
| **19** | 20 | 21 | 22 | 23 | 24 | 25 |
| **26** | 27 | 28 | 29 | 30 | 31 | |

### JUNE

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | | 1 |
| **2** | 3 | **4** | 5 | **6** | 7 | 8 |
| **9** | 10 | 11 | 12 | 13 | 14 | 15 |
| **16** | 17 | 18 | 19 | 20 | 21 | 22 |
| **23** | 24 | 25 | 26 | 27 | 28 | 29 |
| **30** | | | | | | |

### JULY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | **4** | 5 | 6 |
| 7 | 8 | **9** | 10 | 11 | 12 | 13 |
| 14 | 15 | **16** | 17 | 18 | 19 | 20 |
| **21** | 22 | 23 | 24 | 25 | 26 | 27 |
| **28** | 29 | 30 | 31 | | | |

### AUGUST

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| **4** | 5 | **6** | **7** | 8 | 9 | 10 |
| **11** | 12 | 13 | 14 | 15 | 16 | 17 |
| **18** | 19 | 20 | 21 | 22 | 23 | 24 |
| **25** | 26 | 27 | 28 | 29 | 30 | 31 |

### SEPTEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | **4** | 5 | **6** | 7 |
| **8** | 9 | 10 | 11 | 12 | 13 | 14 |
| **15** | 16 | 17 | 18 | 19 | 20 | 21 |
| **22** | 23 | 24 | 25 | 26 | 27 | 28 |
| **29** | 30 | | | | | |

### OCTOBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| **6** | 7 | 8 | 9 | 10 | 11 | 12 |
| **13** | 14 | 15 | 16 | 17 | 18 | 19 |
| **20** | 21 | 22 | 23 | 24 | **25** | 26 |
| **27** | 28 | 29 | 30 | 31 | | |

### NOVEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | 1 | 2 |
| **3** | 4 | 5 | 6 | 7 | 8 | 9 |
| **10** | 11 | 12 | 13 | 14 | 15 | 16 |
| **17** | 18 | 19 | 20 | 21 | 22 | 23 |
| **24** | 25 | 26 | 27 | 28 | 29 | 30 |

### DECEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| **1** | 2 | 3 | 4 | 5 | 6 | 7 |
| **8** | 9 | 10 | 11 | 12 | 13 | 14 |
| **15** | 16 | 17 | 18 | 19 | 20 | 21 |
| **22** | **23** | **24** | 25 | **26** | 27 | **28** |
| **29** | **30** | **31** | | | | |

The days on which the University is in session are printed in light-face type; Sundays, holidays, and vacations in bold-face type.

# The University Calendar

## 1945

May 26, Saturday—Alumni Day

May 27, Sunday—Baccalaureate Exercises

May 28, Monday—Commencement Day

June 4, Monday—Registration for first term, Summer Session

June 5, Tuesday—First recitations, Summer Session

July 4, Wednesday—Independence Day, a holiday

July 13, Friday—Close of first term, Summer Session

July 16, Monday—Registration for second term, Summer Session

July 17, Tuesday—First recitations, second term, Summer Session

August 24, Friday—Close of Summer Session

September 14, Friday, to September 18, Tuesday, inclusive
Freshman Week Program

September 17 and 18, Monday and Tuesday—Registration for first semester

September 19, Wednesday—First recitations, first semester

November 9, Friday—Mid-semester reports due

November 22, Thursday, to November 25, Sunday, inclusive
Thanksgiving Recess

December 21, Friday, to January 2, Wednesday, inclusive
Christmas Recess

## 1946

January 19, Saturday, to January 26, Saturday, inclusive
Final examinations for first semester

January 29 and 30, Tuesday and Wednesday—Registration for second semester

January 31, Thursday—First recitations, second semester

March 22, Friday—Mid-semester reports due

April 18, Thursday, to April 24, Wednesday, inclusive—Easter recess

May 23, Thursday, to May 31, Friday, inclusive
Final examinations for second semester

June 1, Saturday—Alumni Day

June 2, Sunday—Baccalaureate Exercises

June 3, Monday—Commencement Day

The University Calendar is subject to change without notice.

# West Virginia University

**Morgantown**

**Established February 7, 1867**

## The West Virginia Board of Control

| | TERM EXPIRES |
|---|---|
| JOSEPH Z. TERRELL, PRESIDENT, *Clarksburg* | June 30, 1949 |
| DELL WHITE, SECRETARY, *Madison* | June 30, 1949 |
| WILLIAM C. COOK, TREASURER, *Welch* | June 30, 1945 |

The West Virginia Board of Control has the direction of the financial and business affairs of the state educational institutions.

## The Board of Governors

| | TERM EXPIRES |
|---|---|
| RAYMOND E. SALVATI, PRESIDENT, *Huntington* | 1945 |
| A. C. SPURR, VICE-PRESIDENT, *Fairmont* | 1946 |
| MRS. GEORGE D. HILL, *Camden-on-Gauley* | 1948 |
| WILLIAM G. THOMPSON, *Montgomery* | 1946 |
| THOMAS L. HARRIS, M. D., *Parkersburg* | 1945 |
| E. G. OTEY, *Bluefield* | 1949 |
| K. DOUGLAS BOWERS, *Beckley* | 1948 |

CHARLES T. NEFF, JR., SECRETARY, *Morgantown*

The Board of Governors has charge of the educational and administrative affairs of the University.

# Part I

# The Staff of Instruction, Research, and Extension*

## THE ADMINISTRATIVE OFFICERS

### General

CHARLES ELMER LAWALL, E. M., M. S., LL. D., *President of the University* (1939), 1921.

LONNA DENNIS ARNETT, PH. D., *Librarian Emeritus* (1935), 1910.

EDNA ARNOLD, M. A., *Dean of Women* (1939), 1935.

RICHARD ASPINALL, D. B., PH. D., *Director of Student Affairs and Director of University Extension* (1945), 1936, 1930.

WILLIAM PORTER KELLAM, A. M., A. B. IN L. S., *Librarian* (1939).

J. EVERETT LONG, M. A., *Acting Registrar* (1944), 1929.

CHARLES THOMPSON NEFF, JR., A. B., *Comptroller* (1934), 1927.

### The Colleges, Schools, and Divisions

FRIEND EBENEZER CLARK, PH. D., *Chairman of the Graduate Council* (1935), 1914.

FRANK CUTHBERT, MUS. D., *Director of the School of Music* (1934).

ANDREW JACKSON DADISMAN, PH. D., *Director of the Summer Session* (1929), 1914.

GERALD GRIFFIN, A. B., *Lieutenant Colonel, Infantry, U. S. Army, Commandant of Cadets* (1944).

GRACE MARGARET GRIFFIN, A. M., *Acting Dean of the School of Physical Education and Athletics* (1944), 1923.

THOMAS PORTER HARDMAN, J. D., *Dean of the College of Law* (1931), 1913.

JOSEPH LESTER HAYMAN, PH. C., M. S., *Dean of the College of Pharmacy* (1936), 1919.

WILLARD WELLINGTON HODGE, M. A., *Dean of the College of Engineering* (1944), 1921.

EARL HUDELSON, PH. D., *Dean of the College of Education* (1930), 1920.

JOHN OLIVER KNAPP, B. S. AGR., *Director, Agricultural Extension Division* (1938), 1917.

CLAYTON ROBERTS ORTON, PH. D., SC. D., *Dean of the College of Agriculture, Forestry, and Home Economics, and Director of the Agricultural Experiment Station* (1938), 1929.

*Note: Date of appointment to present position is given in parentheses after title; date following, if any, indicates year of first appointment to a University staff position.

PERLEY ISAAC REED, PH. D., *Director of the School of Journalism* (1939), 1920.

WILSON PORTER SHORTRIDGE, PH. D., *Dean of the College of Arts and Sciences* (1929), 1922.

JOHN NATHAN SIMPSON, A. B., M. D., *Dean Emeritus, School of Medicine* (1935), 1902.

GAROLD RALPH SPINDLER,[2] B. S. E. M., E. M., *Assistant Director of Mining Extension, and Director of Fire Service Extension Schools* (1938), 1934.

ALDEN WILBUR THOMPSON,[1] M. A., *Dean of the School of Physical Education and Athletics* (1937).

EDWARD JERALD VAN LIERE, M. D., PH. D., *Dean of the School of Medicine* (1937), 1921.

## The Council of Administration; The Senate

For a description of the Council of Administration and of the University Senate, see the section on Government and Organization, page 33.

## The Graduate Council

FRIEND EBENEZER CLARK, PH. D., *(Chairman), Professor of Chemistry.*

CHARLES HENRY AMBLER, PH. D., *Professor of History.*

ROBERT CAMERON COLWELL, PH. D., *Professor of Physics.*

ROBERT BARCLAY DUSTMAN, PH. D., *Professor of Agricultural Chemistry.*

ALEXANDER HARDIE FORMAN, PH. D., *Professor of Electrical Engineering.*

FORREST WILBUR STEMPLE, PH. D., *Professor of Education.*

HARRY GROVE WHEAT, PH. D., *Professor of Education.*

## Other Administrative Officers

ELIZABETH CARROLL BIRD,[3] A. B., *Executive Secretary, Young Women's Christian Association* (1943).

CHANDLER LINN BROOKS, *Assistant Superintendent of Buildings and Grounds (limited service)* (1932), 1917.

CLIFFORD W. BROWN, B. S. MUS. ED., M. A. MUS. ED., *Director of ROTC Band* (1942).

JOHN BEHNY GRUMBEIN, M. M. E., *Superintendent of Buildings and Grounds* (1932), 1903.

ROY M. HAWLEY, A. B., *Director of Intercollegiate Athletics* (1938), 1935.

DAVID W. JACOBS,[1] A. B., *Director, Bureau of Information* (1938).

GERALD JENNY, M. S., *University Editor* (1933), 1929; *Director of University Broadcasting* (1938).

LOUISE KEENER, B. A., *Assistant to the Comptroller* (1936), 1929.

BERNARD R. MCGREGOR,[1] B. S. ED., *Director of the University Band* (1938), 1935.

BERTHA BROWNING PURINTON, A. M., *Assistant Registrar* (1928), 1919.

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[1]On leave for Military Service.
[2]On leave of absence, 1944-45.
[3]Resigned September 1, 1944.

RUTH ELEANOR ROBINSON, A. M., *Manager, University Book Store* (1944).

HARRY EVERETT STONE, A. M., *Secretary of Student Loans and Placement* (1936), 1922.

LAWRENCE VAN SICKLE,[4] *Manager, University Book Store* (1941), 1936.

## The Student Health Service

JOHN JOSEPH LAWLESS, PH. D., M. D., *Director, Student Health Service* (1944), 1935.

EUGENE DEANGELIS, B. S., M. B., M. D., *Physician* (1944), 1939.

SAMUEL JOHN MORRIS, M. D., *Physician and Attending Physician, Department of Athletics* (1935), 1912.

CLARK KENDALL SLEETH,[1] A. B., B. S., M. D., *Assistant Physician* (1941), 1935.

FABRY L. HAWK, *Technician* (1936), 1933.

ALBERT F. WOJCIK, B. S. PHAR., *Registered Pharmacist* (1945).

VESTA J. ANDERSON, *Technician* (1945).

ELIZABETH B. BOGER, A. B., *Assistant Technician* (1944).

NYTA DEANE BECKMAN, R. N., *Nurse* (1943).

PEARL BENVENITO, R. N., *Nurse* (1945).

BETTY EMERSON, R. N., *Nurse* (1944).

WEYMOUTH C. LOWERY, R. N., *Nurse* (1944).

INEZ F. SCOTT, R. N., *Nurse* (1944).

## The Residences and Commons

MAYME ELIZABETH WADDELL, B. S., M. A., *Business Director* (1935), 1930.

BERTHA HAWLEY ALLEN, A. B., *Assistant to Social Director, Terrace Hall* (1944).

EDNA ARNOLD, M. A., *Social Director, Women's Hall, North* (1935).

BETTY ANNE BREHL, B. S., *Assistant Dietitian, Women's Hall* (1943).

RUTH HENRY BROOKS,[5] *Assistant to the Social Directors, Women's Hall* (1942).

PANSY OLIVE CORNWELL, Normal Diploma, *Assistant to Social Directors, Women's Hall* (1944).

ANN L. CULLEY, B. S., *Dietitian, Women's and Terrace Dining Halls* (1937).

DONALD WILLIAM DUDLEY, *Manager, Men's Dining Hall* (1943).

IRIS DORIS FORBES,[6] B. S., M. S., *Assistant Dietitian, Terarce Dining Hall* (1942).

CAROL GAWTHROP,[6] A. B., M. A., *Social Director, Terrace Hall* (1942), 1937.

ISABEL RAY HAYES, *Social Director, Women's Hall, Center* (1935), 1923.

RUTH TREGELLAS LONG, *Assistant to Social Directors, Terrace Hall* (1942).

KATHLEEN MITCHELL, *Social Director, Women's Hall, South* (1942), 1940.

EMILIE CHRISTINE O'RORK,[6] B. S., *Assistant Dietitian, Men's Dining Hall* (1943).

MARGARET ELIZABETH SCHNEIDER, B. S., *Assistant Dietitian, Terrace Dining Hall* (1943).

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[1]On leave for Military Service.
[4]Resigned October 31, 1944.
[5]Resigned February 29, 1944.
[6]Resigned June 30, 1944.

MARY JANE BULK SHAFER,[8] Normal Life Diploma, B. S. ED., M. S., ED., *Social Director, Terrace Hall* (1944), 1942.

VIOLET SIMPSON,[7] *M. A., Dietitian, Cafeteria* (1943).

CLARICE LUCILLE WORLEY,[6] B. S., *Assistant Dietitian, Men's Dining Hall* (1943).

## THE STAFF OF INSTRUCTION

### Professors

HOWARD BUSHNELL ALLEN, PH. D., *Professor of Education* (1932), 1920.

CHARLES HENRY AMBLER, PH. D., *Professor of History* (1929), 1917.

WALTER WARDLAW ARMENTROUT,[2] PH. D., *Professor of Agricultural Economics* (1936), 1924.

HORACE ATWOOD, M. S. AGR., *Professor Emeritus of Poultry Husbandry* (1931), 1897.

ROBERT DODGE BALDWIN, PH. D., *Professor of Education* (1933), 1931.

GORDON ALGER BERGY, PH. C., M. S., *Professor of Pharmacy* (1921), 1916.

GEORGE PAUL BOOMSLITER, M. S. C. E., *Professor of Mechanics* (1920).

CHRISTOPHER GEORGE BROUZAS, PH. D., *Professor of Latin and Greek* (1935), 1926.

JAMES MORTON CALLAHAN, PH. D., *Professor Emeritus of History* (1940), 1902.

LEO CARLIN, A. B., LL. B., *Professor of Law* (1921), 1916.

SIMON B. CHANDLER, A. M., M. D., *Professor of Anatomy* (1935).

OLIVER PERRY CHITWOOD, PH. D., LL. D., *Professor of History* (1907).

FRIEND EBENEZER CLARK, PH. D., *Professor of Chemistry* (1914).

ARMAND RENE COLLETT, PH. D., *Professor of Chemistry* (1939), 1924.

CLYDE LEMUEL COLSON,[2] A. B., LL. B., S. J. D., *Professor of Law* (1938), 1935.

RACHEL HARTSHORN COLWELL, M. A., *Professor Emeritus of Home Economics and Education* (1935), 1910.

ROBERT CAMERON COLWELL, PH. D., *Professor of Physics* (1924), 1918.

EARL LEMLEY CORE, PH. D., *Professor of Botany* (1942), 1928.

JOHN HARRINGTON COX, PH. D., LITT. D., *Professor Emeritus of English Philology* (1930), 1902.

FRANK CUTHBERT, MUS. D., *Professor of Music* (1934).

ANDREW JACKSON DADISMAN, PH. D., *Professor of Economics* (1933), 1914.

ARLEIGH LEE DARBY, A. M., LITT. D., *Professor of Romance Languages* (1929), 1910.

EARL CLAUDIUS HAMILTON DAVIES, PH. D., *Professor of Chemistry* (1931), 1920.

ROLAND PARKER DAVIS, PH. D., *Professor of Structural Engineering* (1911).

EDMUND CHARLES DICKINSON, A. B., J. D., *Professor of Law* (1921).

GIDEON STANHOPE DODDS, B. A., M. A., PH. D., *Professor of Histology and Embryology* (1925), 1918.

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[2]On leave of absence, 1944-45.
[6]Resigned June 30, 1944.
[7]Resigned February 14, 1944.
[8]Resigned June 30, 1945.

WILLIAM SMITH DOWNS, B. S. C. E., C. E., *Professor (part-time) of Railway and Highway Engineering* (1935), 1931.

JOHN WILLIAM DRAPER, PH. D., *Professor of English* (1929).

ROBERT BARCLAY DUSTMAN, PH. D., *Professor of Agricultural Chemistry* (1929), 1924.

JOHN ARNDT EIESLAND, PH. D., *Professor Emeritus of Mathematics* (1938), 1907.

CLEMENT COLEMAN FENTON, M. S., M. D., *Professor of Pathology and Clinical Pathology* (1926), 1922.

ORFA REX FORD, PH. D., *Professor of Physics* (1943), 1925.

ALEXANDER HARDIE FORMAN, M. M. E., PH. D., *Professor of Electrical Engineering* (1916), 1913.

CARL MAYNARD FRASURE, PH. D., *Professor of Political Science* (1940), 1927.

HARRY MARION FRIDLEY, PH. D., *Professor of Geology* (1943), 1928.

JAMES HERBERT GILL, M. E., *Professor (limited service) of Machine Construction and Superintendent of Shops* (1940), 1920.

GRACE MARGARET GRIFFIN, A. M., *Professor of Physical Education* (1944), 1923.

JOHN BEHNY GRUMBEIN, M. M. E., *Professor of Power Engineering* (1916), 1903.

ARTHUR A. HALL, B. S. M. E., *Professor of Electrical Engineering* (1922), 1916.

THOMAS PORTER HARDMAN, M. A., J. D., *Professor of Law* (1919), 1913.

THOMAS LUTHER HARRIS, PH. D. *Professor of Sociology* (1923), 1921.

LESLIE DAVID HAYES,[3] M. E., *Professor of Machine Design and Construction* (1918).

JOSEPH LESTER HAYMAN, PH. C., M. S., *Professor of Pharmacognosy* (1936), 1919.

HARRY ORAM HENDERSON, PH. D., *Professor of Dairy Husbandry* (1928), 1919.

HUBERT HILL, M. S., *Professor of Chemistry* (1928), 1911.

LAWRENCE BENJAMIN HILL, PH. D., *Professor of Education* (1920), 1918.

WILLARD WELLINGTON HODGE, M. A., *Professor of Chemical Engineering and Director, Engineering Experiment Station* (1936), 1921.

EARL HUDELSON, PH. D., *Professor of Education* (1930), 1920.

CARL ALFRED JACOBSON, PH. D., *Professor of Chemistry* (1920).

DAVID DALE JOHNSON, A. M., LITT. D., *Professor of English* (1920), 1902.

WALTER ALLOS KOEHLER, CH. E., PH. D., *Professor of Chemical and Ceramic Engineering* (1929), 1924.

JULIAN GILBERT LEACH, PH. D., *Professor of Plant Pathology* (1938).

LEON H. LEONIAN,[4] PH. D., *Professor of Mycology* (1936), 1922.

EDWARD ALEXANDER LIVESAY, D. SC., *Professor of Animal Husbandry* (1919).

PERCIVAL LLOYD MACLACHLAN, A. B., PH. D., *Professor of Biochemistry* (1943), 1936.

RAY STANLEY MARSH, M. A., *Professor of Horticulture* (1936).

JAMES H. C. MARTENS, PH. D., *Professor of Geology* (1943), 1929.

[3]Deceased October 1, 1944.
[4]Deceased June 7, 1945.

FRED A. MOLBY, PH. D., *Professor of Physics* (1921), 1920.

SAMUEL MORRIS, PH. D., *Professor of Chemistry* (1921), 1916.

SAMUEL JOHN MORRIS, M. D., *Professor of Physical Education* (1935), 1912.

RUTH DOUGLAS NOER, M. S., *Professor of Home Economics* (1938), 1925.

DICKSON WARD PARSONS, PH. D., *Professor of Rural Organization* (1939), 1923.

LEONARD MARION PEAIRS, PH. D., *Professor of Entomology* (1914), 1912.

W. CLEMENT PERCIVAL, PH. D., *Professor of Forestry* (1939), 1934.

GEORGE GORDON POHLMAN, PH. D., *Professor of Agronomy* (1938), 1930.

REBECCA LUELLA POLLOCK, PH. D., *Professor of Education* (1928), 1916.

PAUL HOLLAND PRICE,[1] PH. D., *Professor of Geology* (1938), 1930.

PERLEY ISAAC REED, PH. D., *Professor of Journalism* (1927), 1920.

ALBERT MOORE REESE, PH. D., *Professor of Zoology* (1907).

CLARENCE NEWTON REYNOLDS, JR., PH. D., *Professor of Mathematics* (1931), 1921.

JOHN HARRISON RIETZ, D. V. M., M. S., *Professor of Animal Pathology* (1941), 1927.

WILSON PORTER SHORTRIDGE, PH. D., *Professor of History* (1922).

FRED MANNING SMITH, PH. D., *Professor of English* (1939), 1927.

ROBERT CLIFTON SPANGLER, PH. D., *Professor of Botany* (1926), 1914.

HENRY WITHERS SPEIDEN, M. S. C. E., *Professor of Civil Engineering* (1941), 1931.

CLAUDE CARL SPIKER, PH. D., *Professor of French and Spanish* (1926), 1913.

ROBB SPALDING SPRAY, PH. D., *Professor of Bacteriology and Public Hygiene* (1926), 1921.

ELIZABETH MATTINGLY STALNAKER, PH. D., *Professor of Psychology* (1928), 1925.

MADISON STATHERS, PH. D., *Professor of Romance Languages* (1910), 1906.

FORREST WILBUR STEMPLE, PH. D., *Professor of Education* (1931), 1916.

PERRY DANIEL STRAUSBAUGH,[1] PH. D., *Professor of Botany* (1923).

EMIL MCKEE SUNLEY, PH. D., *Professor of Public Welfare* (1938).

LELAND HART TAYLOR, SC. D., *Professor of Zoology* (1939), 1922.

ALDEN WILBUR THOMPSON,[1] M. A., *Professor of Physical Education* (1937).

RALPH B. TOWER, B. B. A., M. B. A., PH. D., *Professor of Economics and Business Administration* (1941).

BIRD MARGARET TURNER, PH. D., *Professor of Mathematics* (1931), 1923.

EDWARD JERALD VAN LIERE, M. D., PH. D., *Professor of Physiology* (1921).

ENOCH HOWARD VICKERS, A. M., *Professor Emeritus of Economics and Business Administration* (1938), 1911.

HARRY GROVE WHEAT, PH. D., *Professor of Education* (1935).

CURTIS CHANDLER WILLIAMS, JR.,[2] A. B., S. J. D., *Professor of Law* (1932).

JOHN E. WINTER, PH. D., *Professor of Psychology* (1923), 1921.

[1]On leave for Military Service.
[2]On leave of absence, 1944-45.

## Associate Professors

MARTIN ABRAHAM ABRAHAMSEN,[6] PH. D., *Associate Professor of Agricultural Economics* (1942), 1936.

ROBERT RUSSELL ASHBURN, A. M., *Associate Professor of Spanish* (1944), 1925.

FRED WILSON BESLEY, A. B., M. F., D. SC., *Associate Professor of Forest Management* (1943).

LOWELL BESLEY,[1] M. F., *Associate Professor of Forestry Management* (1938), 1937.

GEORGE AUGUSTUS BOWLING, M. S.,[7] *Associate Professor of Dairy Husbandry* (1938), 1931.

MAURICE GRAHAM BROOKS, M. S., *Associate Professor of Wildlife Management* (1942), 1934.

WILLIAM CARSON BROWN,[3] M. S., PH. D., *Associate Professor of Dairy Husbandry* (1943), 1934.

JOSEPH LINCOLN CARTLEDGE, PH. D., *Associate Professor of Genetics* (1943), 1936.

CARL HENRY CATHER, M. S., *Associate Professor of Mechanics* (1939), 1916.

HAROLD MALCOLM CATHER, B. S. M. E., M. E., *Associate Professor of Power Engineering* (1939), 1919.

LOUIS WATSON CHAPPELL, A. M., *Associate Professor of English* (1928), 1923.

WILLIAM HENRY CHILDS, PH. D., *Associate Professor of Horticulture* (1944), 1931.

FERRIS DEWEY CORNELL, JR., PH. D., *Associate Professor of Agricultural Economics* (1937) 1921.

JOHN REGINALD CRESSWELL, PH. D., *Associate Professor of Philosophy* (1941), 1929.

STEPHEN FULLER CROCKER, A. M., *Associate Professor of English* (1938), 1931.

QUIN FISCHER CURTIS, PH. D., *Associate Professor of Psychology* (1943), 1941.

HANNIBAL ALBERT DAVIS, PH. D., *Associate Professor of Mathematics* (1935), 1921.

EUGENE DEANGELIS, B. S., M. B., M. D., *Associate Professor of Pathology* (1944), 1931.

LILY BELL DEATRICK, PH. D., *Associate Professor of Chemistry* (1927), 1920.

JASON CLARK EASTON, PH. D., *Associate Professor of History* (1943), 1938.

THOMAS EDSON ENNIS, PH. D., *Associate Professor of History* (1938), 1930.

HARVEY D. ERICKSON, PH. D., *Associate Professor of Forest Utilization* (1943), 1937.

MALCOLM CURTIS GAAR, B. S., M. S., PH. D., *Associate Professor of Rural Organization* (1943), 1938.

FREDERICK LINCK GEILER, B. S. PHAR., M. S., *Associate Professor of Pharmacy* (1943), 1928.

LLOYD RAYMOND GRIBBLE, PH. D., *Associate Professor of Zoology* (1943), 1929.

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[1]On leave for Military Service.
[3]Resigned May 31, 1944.
[6]On leave of absence January 1 to June 30, 1945
[7]Resigned June 30, 1945.

LYDIA IRENE HINKEL, MUS. B., *Associate Professor of Music* (1939), 1921.

HAROLD MARTENEY HYRE, M. S., *Associate Professor of Poultry Husbandry* (1944).

EDWIN CHANNING JONES, M. S. E. E., *Associate Professor of Electrical Engineering* (1941), 1926.

FORREST ELWOOD KELLER,[1] M. A., *Associate Professor of Economics* (1941), 1936.

JOHN JOSEPH LAWLESS, PH. D., M. D., *Associate Professor of Medicine* (1944), 1935.

CHARLES LESTER LAZZELL, PH. D., *Associate Professor of Chemistry* (1935), 1922.

ELDOR A. MARTEN,[4] PH. D., *Associate Professor of Bacteriology* (1941), 1936.

CHARLES MITRANI, PH. D., *Associate Professor of Romance Languages* (1931), 1921.

NELL NESBITT, A. M., *Associate Professor of Home Economics* (1942), 1923.

DAVID W. NORTHUP, A. M., PH. D., *Associate Professor of Physiology* (1938), 1935.

CHARLES EDWIN PATTON, A. M., *Associate Professor of Art* (1942), 1939.

HARRY LAWRENCE SAMUEL,[2] M. S. IN PUBLIC HEALTH, *Associate Professor of Physical Education, and Director of Intramural Athletics* (1936), 1928.

JACOB SAPOSNEKOW, M. A., *Associate Professor of Sociology* (1941), 1924.

BURCH H. SCHNEIDER, PH. D., *Associate Professor of Animal Husbandry* (1938).

CHARLES BORUM SEIBERT, B. S. E. E., M. S., *Associate Professor of Electrical Engineering* (1944), 1934.

VOLNEY WILLIAM SHEPARD,[4] A. B., B. M., *Associate Professor of Music* (1941), 1927.

WILLIAM ANDERSON STAAB,[5] E. M., *Associate Professor of Mining Engineering* (1939), 1926.

FESTUS PAUL SUMMERS, A. M., PH. D., *Associate Professor of History* (1939), 1932.

CHARLES DANSER THOMAS, M. S., PH. D., *Associate Professor of Physics* (1943), 1931.

EDWARD HENRY TYNER, PH. D., *Associate Professor of Agronomy* (1943), 1938.

COLLINS VEATCH, PH. D., *Associate Professor of Genetics* (1945).

CHARLES HENRY VEHSE, PH. D., *Associate Professor of Mathematics* (1938), 1929.

RANDOLPH WYATT WEBSTER,[1] PH. D., *Associate Professor of Physical Education and Director of Service Program for Men* (1941), 1940.

KYLE CHESTER WESTOVER, PH. D., *Associate Professor of Horticulture* (1936), 1921.

CHARLES VINYARD WILSON, M. S., *Associate Professor of Animal Husbandry* (1938), 1919.

KENNETH WOOD, MUS. M., *Associate Professor of Violin and Ensemble* (1941), 1928.

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[1]On leave for Military Service.
[2]On leave of absence, 1944-45.
[4]Resigned August 31, 1944.
[5]Resigned February 15, 1945.

## Assistant Professors

ALBERT SALISBURY ABEL,[1] A. B., J. D., LL. M., *Assistant Professor of Law* (1940).

NELLIE PERREL AMMONS, A. M., PH. D., *Assistant Professor of Botany* (1937), 1920.

BERTIL GOTTFRIED ANDERSON, PH. D., *Assistant Professor of Zoology* (1943), 1942.

WILFRED H. BAKER, M. S, C. E., *Assistant Professor of Civil Engineering* (1941).

KENNETH BELL, B. J., M. A., *Assistant Professor of Journalism* (1944).

CARTER RICHARD BISHOP, M. A., PH. D., *Assistant Professor of English* (1937), 1929.

JAMES PAUL BRAWNER, PH. D., *Assistant Professor of English* (1936), 1935.

HELEN CHARLEY,[3] M. S., *Assistant Professor of Home Economics* (1943), 1941.

GENEVIEVE BERNICE CLULO, A. M., *Assistant Professor of Plant Pathology* (1943), 1932.

JULIUS COHEN,[2] A. B., M. A., LL. B., LL. M., *Assistant Professor of Political Science* (1939), 1935.

MARGARET BUCHANAN COLE, A. B., PH. D., *Assistant Professor of Mathematics* (1942), 1938.

GEORGE HENRY COLEBANK, M. A., *Assistant Professor of Education* (1928).

KERMIT A. COOK, M. A., *Assistant Professor of Education* (1944), 1935.

FRANCES PRISCILLA DELANCY,[4] A. B., PH. D., *Assistant Professor of Political Science* (1939), 1932.

MONTELLE DIETRICH, M. S., *Assistant Professor of Home Economics* (1941), 1929.

ROBERT TUCKER DONLEY, A. B., LL. B., *Assistant Professor of Law* (1943), 1942.

R. FRANKLIN DUGAN, M. F., *Assistant Professor of Wildlife Management* (1943), 1942.

ARTHUR PINGREE DYE, B. S., M. S. AGR., *Assistant Professor of Horticulture* (1941), 1923.

MARJA STEADMAN FEAR, A. M., *Assistant Professor of Public Speaking* (1935), 1920.

ALBERT WILEY FRIEND,[2] B. S. E. E., M. S., *Assistant Professor of Physics* (1937), 1934.

JAMES OSBORN FULLER, PH. D., *Assistant Professor of Geology* (1943).

JOHN ARTHUR GIBSON, JR., PH. D., *Assistant Professor of Chemistry* (1934), 1926.

MELVIN CRAWFORD GODWIN,[5] A. B., PH. D., *Assistant Professor of Anatomy and Histology* (1940), 1936.

---

[1]On leave for Military Service.
[2]On leave of absence, 1944-45.
[3]Resigned July 31, 1944.
[4]Resigned June 30, 1944.
[5]Resigned September 16, 1944

GEORGE WALTER GROW, M. S., *Assistant Professor of Drawing and Machine Design* (1917), 1912.

MARGARET H. HOFFMAN, A. B., M. A., *Assistant Professor of Public Welfare* (1944), 1943.

CHARLES T. HOLLAND, B. S. E. M., M. S., *Assistant Professor of Mining Engineering* (1943), 1930.

TORKEL HOLSOE,[1] M. F., *Assistant Professor of Silviculture* (1938).

BEATRICE HURST, M. A., *Assistant Professor of Physical Education* (1935), 1928.

ROBERT H. JOHNSON,[1] M. A., PH. D., *Assistant Professor of Economics and Business Administration* (1942), 1940.

VICTOR JACOB LEMKE, A. B., A. M., PH. D., *Assistant Professor of German* (1941), 1939.

ALFRED DELBERT LONGHOUSE, M. S. AGR., *Assistant Professor of Rural Organization* (1942), 1938.

MARLYN EDWARD LUGAR,[2] A. B., LL. B., *Assistant Professor of Law* (1939).

ARTHUR COOK MCBRIDE, A. B., *Assistant Professor of French* (1941), 1926.

JAMES R. MACDONALD, PH. D., *Assistant Professor of Chemical Engineering* (1943).

WARREN FRANCIS MANNING, A. M., PH. D., *Assistant Professor of French* (1938), 1928.

GEORGE RALPH MAXWELL, B. S., M. D., *Assistant Professor of Physical Diagnosis (part-time)* (1936), 1924.

BETH MAE PALMER, M. S., *Assistant Professor of Home Economics* (1927).

HELEN PURINTON PETTIGREW, PH. D., *Assistant Professor of English* (1941), 1919.

CECIL BENJAMIN PRIDE, A. B., M. D., *Assistant Professor of Surgery* (1936), 1926.

EVAN OWEN ROBERTS, B. A., M. A., *Assistant Professor of Economics and Business Administration* (1941), 1939.

IRA ERRETT RODGERS, A. B., *Assistant Professor of Physical Education* (1931), 1920.

DAVID SALKIN, M. D., *Assistant Professor of Medicine (Hopemont)* (1944), 1936.

LYDIA ROESCH, PH. D., *Assistant Professor of German* (1935), 1925.

WILSON B. SAYERS,[9] B. S. FOR., *Assistant Professor of Silviculture* (1943), 1942.

GREEK SAYRE, M. A., *Assistant Professor of English* (1941), 1918.

HOWARD PERRY SIMONS, B. A., M. S., PH. D., *Assistant Professor of Chemical Engineering* (1939).

VIOLET SIMPSON,[6] M. A., *Assistant Professor of Home Economics* (1943).

CLARK KENDALL SLEETH,[1] A. B., B. S., M. D., *Assistant Professor of Physical Diagnosis and Medicine* (1941), 1935.

---

[1]On leave for Military Service.
[2]On leave of absence, 1944-45.
[6]Resigned February 14, 1944.
[9]Resigned May 31, 1945.

ARTHUR NEWELL SMITH, A. B., *Assistant Professor of Physical Education* (1931), 1923.

VIVIAN SORELLE, A. B., M. A., *Assistant Professor of Journalism* (1944), 1943.

JOSEPH K. STEWART,[1] PH. D., *Assistant Professor of Mathematics* (1939), 1930.

CARLTON FULTON TAYLOR, PH. D., *Assistant Professor of Plant Pathology* (1941), 1938.

MARVIN LEWIS VEST, M. S., *Assistant Professor of Mathematics* (1943), 1931.

JOHN CARL WEBER, M. S. E. E., *Assistant Professor of Electrical Engineering* (1943), 1941.

DANA WELLS, M. A., *Assistant Professor of Geology* (1938), 1930.

HAROLD WENTWORTH,[7] PH. D., *Assistant Professor of English* (1939), 1934.

RALPH H. WHERRY, M. A., *Assistant Professor of Economics and Business Administration* (1942), 1940.

BENNETT SEXTON WHITE, B. S. M. E., *Assistant Professor of Drawing and Machine Design* (1922), 1919.

FREDERICK RENDELL WHITTLESEY, M. D., *Assistant Professor of Medicine* (1941), 1930.

ERNEST THOMAS WIGHTMAN,[8] M. S. AGR., *Assistant Professor of Poultry Husbandry* (1934) 1924.

## Instructors

EVELYN BENJAMIN,[3] M. S., *Instructor in Home Economics* (1943).

ROBERT HOWELL BLACK,[1] M. S., *Instructor in Animal Husbandry* (1942), 1940.

ROY ELLIOTT BOONE,[4] A. B., A. M., *Instructor in Physics* (1943), 1923.

SAMUEL BOYD, JR., B. D. A., *Instructor in Public Speaking* (1943).

WALTER MARION BROADFOOT,[1] M. S., *Instructor in Agronomy* (1938), 1936.

JACK B. BYERS,[1] B. S., *Instructor in Forestry* (1941).

CATHERINE M. CAMPBELL,[9] M. A., *Instructor in Home Economics and Assistant Teacher Trainer* (1944).

WILLIAM JOHN CARL, *Instructor in Foundry Practice and Pipe Fitting* (1920).

LORNA DOONE CARLIN,[5] A. B., M. S., *Instructor in Mathematics* (1943).

LUCY MAY COPLIN, A. M., *Instructor in Education* (1931), 1925.

HAZEL RUTH COUTTS, M. A., *Instructor in Business Administration* (1943).

ROBERT FRANKLIN DAVISSON,[1], B. S. E. M., *Instructor in Oil and Gas Engineering* (1941).

PAUL EUGENE DESGUIN, B. S. ED., *First Lieutenant, Signal Corps, U. S. Army, Instructor in Military Science and Tactics* (1942).

H. MARTIN DETURK, B. S. I. E., *Instructor in Machine Drawing and Design* (1941).

DEXTER GILDEN DOTSON,[5] A. B., *Instructor in Physics* (1943).

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[1]On leave for Military Service.
[3]Resigned July 1, 1944.
[4]Resigned April 30, 1944.
[5]Resigned March 31, 1944.
[7]Resigned September 1, 1944.
[8]Resigned October 31, 1944.
[9]Resigned January 15, 1945.

JOHN DIXON DOWNES, JR.,[1] B. S. AGR., *Instructor in Horticulture* (1943).

GLENN A. DRAGER, B. S., M. S., *Instructor in Anatomy (part-time)* (1942).

MARGARET ERLANGER,[1] M. A., M. S., *Instructor in Physical Education* (1937).

JOHN THOMAS EVANS, A. B., B. MUS., M. MUS., *Instructor (part-time) in Instrument Classes* (1943).

GEORGE ANDREW FEDERER, JR., M. A., *Instructor in Education* (1934), 1928.

RUEL ELTON FOSTER,[1] PH. D., *Instructor in English* (1941).

MARGARET G. FOX,[3] M. A., *Instructor in Physical Education* (1940).

THELMA T. GILMAN, M. A., *Instructor in Psychology and Philosophy* (1945).

CARD E. JOHNSON, M. D., *Instructor (part-time) in Medicine* (1941).

LLOYD EVERETT JONES, *Instructor in Machine Design and Construction* (1937).

WILLIAM FRANKLIN KERN,[1] A. B., *Instructor in Physical Education* (1940).

CHARLES LEWIS,[1] A. B., M. S., *Instructor in Bacterioloy* (1943).

HARRY RICHARD LOTHES,[1] B. S. P. E., *Instructor in Physical Education* (1943).

BERNARD R. MCGREGOR,[1] B. S. ED., *Instructor in Music* (1936), 1935.

VIRGINIA CHRISMAN MCWHORTER, *Instructor in Music* (1940), 1935.

LOUIS JOHN MANUS,[1] M. S., *Instructor in Dairy Husbandry* (1936), 1932.

CLEE OTIS MARSH, JR.,[9] B. S. E. E., *Instructor in Electrical Engineering* (1942).

GLENN FAYETTE MARTIN, *Instructor in Machine Shop and Welding Practice* (1940).

VORAS D. MEEKS, M. A., *Instructor in Public Speaking* (1938).

JOHN ROBERT MERCER,[6] B. S. C. E., *Instructor in Industrial Extension* (1941).

VIRGINIA MAY MILLER,[7] B. S., *Instructor in Physical Education* (1943).

SUSAN MAXWELL MOORE, A. B., *Instructor Emeritus in Piano and Sight Playing* (1937), 1903.

KENNETH HOLDEN MURPHY, A. B., M. S., *Instructor in Mathematics* (1941), 1939.

OLIVER MEADER NEAL,[1] B. S., *Instructor in Horticulture* (1942).

MARY NADINE PAGE, M. A., *Instructor in English* (1934), 1925.

ILAND DEE PETERS, M. S., *Instructor in Mathematics* (1943), 1941.

JAMES STANLEY POUNDSTONE, *Instructor in Mining Extension* (1924).

DEXTER NEVINS PUTNAM,[1] M. S., *Instructor in Dairy Husbandry* (1940), 1938.

RICHARD A. RAESE,[1] A. B., *Varsity Basketball Coach* (1938).

ELIZABETH FROST REED, A. M., *Instructor in English* (1919).

FLORENCE K. REESE, A. B., M. A., B. S. LIBR. SERV., *Instructor in Library Science* (1935).

JAMES IRVING REYNOLDS, B. S. M. E., *Instructor in Mechanical Engineering* (1943), 1942.

DONALD DIRK RITCHIE,[1] A. B., B. S., M. A., *Instructor in Biology* (1938).

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[1]On leave for Military Service.
[3]Resigned July 1, 1944.
[6]Resigned September 30, 1944.
[7]Resigned September 1, 1944.
[9]Resigned May 31. 1945.

HELEN MILLER ROSE, A. B., B. M., *Instructor in Music* (1941), 1940.

WILLIAM ROBERT ROSS,[1] A. B., M. A., *Instructor in Political Science* (1941), 1938.

TOM DOYLE RUNNELS,[1] M. S., *Instructor in Poultry Husbandry* (1940), 1938.

RAYMER EGBERT SEAMAN, *Instructor in Woodworking and Foundry Practice* (1935), 1912.

JOHN SEMON, B. S., *Instructor in Physical Education* (1943).

ARMAND EDWARDS SINGER, A. B., A. M., PH. D., *Instructor in Romance Languages* (1941), 1940.

GRACE MARTIN-SNEE,[10] B. M., *Instructor in Piano and Pipe Organ* (1901), 1898.

SYLVIA JOSEPHINE SOUPART,[10] M. A., *Instructor in Education* (1931), 1925.

JEAN ST. CLAIR STAEHLING,[7] M. S., *Instructor in Physical Education* (1943).

JOHN CLIFFORD STICKNEY, PH. D., *Instructor in Physiology* (1940).

KARINA THURE, M. S., *Instructor in Home Economics* (1943).

PATRICK A. TORK, M. S., *Instructor in Physical Education* (1943).

CRAIG RITCHIE WAUGH,[8] A. B., B. S. IN PHAR., *Instructor in Pharmacy* (1941).

RUFUS ASA WEST, *Instructor in Metal-working (limited service)* (1933), 1892.

NELL WHITE, M. S., *Instructor in Home Economics and Education, and Assistant Teacher Trainer* (1935).

MAY LANDSTREET WILT, M. A., *Instructor in Education* (1931), 1924.

ALBERT FREDDIE WOJCIK, B. S. PHAR., *Instructor in Pharmacy* (1945).

DONALD THOMPSON WORRELL, B. S. E. E., *Instructor in Mechanics* (1941).

## Lecturers

FRED ARTHUR DAVIS,[3] B. S. C. E., *Special Lecturer in Highway Engineering* (1929).

JOHN WESLEY PENCE, A. B., M. A., *Lecturer in Political Science* (1941).

ELDON BRYANT TUCKER, M. D., *Lecturer in Anesthesiology* (1937).

R. F. DICKEY, M. D., *Lecturer in Public Welfare* (1943).

J. A. DOLCE, M. D., *Lecturer in Public Welfare* (1944).

CARL E. JOHNSON, M. D., *Lecturer in Public Welfare* (1942).

C. H. LAYMAN, D. D. S., *Lecturer in Public Welfare* (1939).

HARRY V. THOMAS, M. D., *Lecturer in Public Welfare* (1942).

## Fellows, Assistants, and Technicians

VESTA J. ANDERSON, *Technician, Pathology, School of Medicine* (1945).

DAVID S. BARRICKMAN, M. A., *Technician in Anatomy and Histology, School of Medicine* (1941).

ELIZABETH BARTHOLOMEW, A. B., *Herbarium Assistant* (1941), 1938.

ELIZABETH B. BOGER, A. B., *Assistant Technician, Student Health Service* (1944).

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[1]On leave for Military Service.
[3]Deceased January 7, 1945.
[7]Resigned September 1, 1944.
[8]Resigned January 22, 1945.
[10]Retired June 1, 1945.

MARY SEFTON EDMUNDS, B. S. H. E., *Assistant (part-time) in Home Economics* (1945).

FABRY L. HAWK, *Technician in Pathology, School of Medicine, and Student Health Service* (1936), 1933.

MELVIN EUGENE HINKLE, B. S. E. M., *Research Assistant in Chemical Engineering* (1944).

MARY R. JONES, B. S. H. E., *Assistant in Home Economics and Nutrition Instructor for Cadet Nurses* (1943), 1940.

CONLEY V. LOWTHER,[1] M. S., *Assistant in Plant Pathology* (1944).

PAUL LYON, *Technical Aid in Agricultural Biochemsitry* (1944).

BLANCHE JEAN MCQUISTON, A. B., *Teaching Fellow in Physics* (1943).

HELEN MARY PAVLECH, B. S. ED., *Assistant in Animal Husbandry* (1943).

JANE REGER, A. B., *Teaching Fellow in Geology* (1943).

CHARLES MICHAEL RUNNER, *Stationary Engineer* (1919).

MARY ALICE RYAN, A. B., *Assistant in Plant Pathology* (1944).

AGNES MONROE SMITH, A. B., *Teaching Fellow in History* (1944).

CHARLES ERNEST WALLS, *Laboratory Assistant in Chemical Engineering* (1938).

RAWLEIGH PERL WARD, PH. D., *Research Assistant in Chemical Engineering* (1944).

BARBARA ANNE WILLIAMS, A. B., *Assistant (part-time) in Radio; Teaching Fellow in Public Speaking* (1944).

## THE UNIVERSITY RURAL HIGH SCHOOL STAFF

GEORGE HENRY COLEBANK, M. A., *Principal* (1928).

ELLA LOUISE BOGGESS, M. A., *Vocational Home Economics* (1937), 1928.

ANNA BROCHICK, M. A., *English* (1939), 1938.

RUSSELL CLARK BUTLER, B. S. AGR., *Vocational Agriculture* (1944).

LUCY MAY COPLIN, M. A., *Social Studies* (1931), 1925.

JAMES FREDERICK DAVIS,[1] M. S., *Science* (1935).

ALPHONSE DECOSTER, B. M., *Music* (1944).

CATHERINE MCKELVEY DORSEY, A. B., *Mathematics* (1943).

DONALD WAYNE EICHER,[3] A. B., *Physical Education* (1943).

GEORGE A. FEDERER, JR., *Science* (1934), 1928.

ELIZABETH GATES, M. A., *Social Studies* (1943).

HENRY CLINTON FIKE, A. B., *Industrial Arts* (1943).

HOMER FIZER,[1] B. S. P. E., *Physical Education* (1940).

LILYAN KING GALBRAITH, B. S. H. E., *Home Economics* (1944).

FRANCES HANCOCK, A. B., B. S. IN LIB. SCI., *Library* (1943).

CHARLES W. HILL,[4] M. A., *Vocational Agriculture* (1937).

DOROTHY MABLE HOLSBERRY,[5] B. S. ED., *Commerce* (1944).

GEORGIA GARNET JAMISON, M. A., *English* (1940).

[1]On leave for Military Service.
[3]Substituting for Mr. Fizer.
[4]Resigned October 31, 1944.
[5]Substituting for Miss Smith.

MARIE LOUISE MEYER, B. S. P. E., *Physical Education* (1944).
KATE MEREDITH ROLLER, A. B., *Art* (1927).
IRENE B. ROSS,[6] B. S., *Science* (1944).
MARY ALICE SEMON, M. A., *Junior High School Teacher* (1943), 1938.
MADALENE E. SMITH,[2] M. A., *Commerce* (1940).
SYLVIA SOUPART, M. A., *English* (1931), 1924.
MARY JANE WASMUTH, B. MUS., *Music* (1943).
DOROTHY MARIE WATSON, B. S., *Commerce* (1943).
MAY L. WILT, M. A., *Mathematics* (1931), 1924.
MILDRED Y. WOOFTER, M. A., *English* (1937), 1936.

## THE UNIVERSITY LABORATORY ELEMENTARY SCHOOL STAFF

BLENDA L. PROUDFOOT, *Teacher, Intermediate Grades* (1943), 1940.
NELLIE R. BALIKER, A. B., *Teacher, Primary Grades* (1944).
MARY JANE WASMUTH, B. MUS., *Teacher, Music* (1943).

## THE UNIVERSITY LIBRARY STAFF

WILLIAM PORTER KELLAM, A. M., *Librarian* (1939).
CHARLES HENRY AMBLER, PH. D., *Director, Division of Documents* (1934).
LONNA DENNIS ARNETT, PH. D., *Librarian Emeritus* (1935), 1910.
VIRGINIA ALICE ALEXANDER, A. B. IN L. S., *Cataloguer* (1945), 1944.
FLEMING BENNETT,[1] B. S. IN L. S., *Assistant Reference Librarian* (1942).
RUTH BLODGETT, A. B., *Assistant Circulation Librarian* (1940), 1932.
JENNIE DELAWDER BOUGHNER, A. B., *Assistant Circulation Librarian* (1938), 1915.
FORREST F. CARHART, JR., A. M. IN L. S., *Assistant Librarian* (1943).
JESSIE GRIFFIN, A. B. IN L. S., *Reference Librarian* (1940).
EVELYN PRATT HITE, A. B., *Cataloguer (limited service)* (1944), 1922.
ELEANOR EDDY KNUTTI, *Head Extension Library (limited service)* (1944), 1922.
AIDA ROSE KRAVCIK, B. S. IN L. S., *Assistant Reference Librarian* (1943).
JESSIE B. MADIGAN, *Assistant in Catalogue Department* (1932).
VIRGINIA MADIGAN, B. S., *Assistant Reference Librarian* (1930).
ELIZABETH BROWNFIELD NEEL, *Order Clerk* (1936).
ELOISE FISHER NEWLON, A. M., *Assistant Cataloguer* (1945).
BYRD LEA PICKENS, M. A., *Assistant Circulation Libararian* (1930).
MARGARET VIRGINIA REAY, B. S. IN L. S., *Head Extension Library Service* (1944), 1927.
FLORENCE K. REESE, A. M., *Instructor in Library Science* (1935).
MATTIE VIRGINIA STERLING, A. B. IN L. S., *Assistant Reference Librarian* (1944).
MARY VIRGINIA SWISHER,[2] *Assistant Reference Librarian* (1940).

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LOUISE FARRELL CONAWAY, *Librarian, College of Law* (1943).

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[1]On leave for Military Service.
[2]On leave of absence, 1944-45.
[6]Substituting for Mr. Davis.

## THE WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION STAFF

CLAYTON ROBERTS ORTON, PH. D., SC. D., *Director* (1938), 1929.

MARTIN ABRAHAM ABRAHAMSEN,[9] PH. D., *Associate Agricultural Economist* (1941), 1936.

RICHARD ATKINS ACKERMAN, M. S., *In Charge of Reedsville Experiment Farm (P. O. Reedsville)* (1944), 1930.

WALTER WARDLAW ARMENTROUT,[2] PH. D., *Agricultural Economist* (1934).

ANTHONY BERG, M. S., *Associate Plant Pathologist* (1925), 1913.

FRED WILSON BESLEY, A. B., M. F., SC. D., *Associate Forester* (1943).

LOWELL BESLEY,[1] M. F., *Associate Forester* (1938).

ROBERT HOWELL BLACK,[1] M. S., *Assistant in Animal Husbandry* (1942), 1940.

GEORGE AUGUSTUS BOWLING,[10] M. S., *Associate Dairy Husbandman* (1938), 1931.

REED HOWARD BRADFORD,[1] M. A., *Associate Rural Sociologist* (1942).

WALTER MARION BROADFOOT,[1] M. S., *Assistant in Agronomy* (1936).

MAURICE GRAHAM BROOKS, M. S., *Associate Forester* (1942), 1934.

WILLIAM CARSON BROWN,[4] PH. D., *Assistant Dairy Husbandman* (1939), 1934.

DAVID ROYAL BROWNING,[3] M. A., *Assistant in Agronomy* (1941).

JACK B. BYERS,[1] B. S. FOR., *Assistant in Forestry* (1940).

JOSEPH CARTLEDGE, PH. D., *Associate Geneticist* (1943), 1936.

HELEN G. CHARLEY,[5] M. S., *Assistant Home Economist* (1943), 1941.

WILLIAM HENRY CHILDS, M. S., *Associate Horticulturist* (1944), 1931.

THOMAS BAIRD CLARK, M. S., *Associate Poultry Husbandman* (1943), 1927.

GENEVIEVE B. CLULO, A. M., *Assistant Plant Pathologist* (1940), 1932.

FERRIS DEWEY CORNELL, JR., PH. D., *Associate Agricultural Economist* (1937), 1921.

CORNELIUS JETT CUNNINGHAM, B. S., *In Charge of Reymann Memorial Farms (P. O. Wardensville)* (1943).

JOHN DIXON DOWNES, JR.,[1] B. S. AGR., *Assistant in Horticulture* (1943).

R. FRANKLIN DUGAN, M. F., *Assistant Forester* (1943), 1942.

ROBERT BARCLAY DUSTMAN, PH. D., *Agricultural Chemist* (1929), 1924.

ARTHUR PINGREE DYE, M. S. AGR., *Assistant Horticulturist* (1940), 1923.

HARVEY D. ERICKSON, PH. D., *Associate Forester* (1943), 1937.

VELMER BERNEL FISH,[11] PH. D., *Assistant Agricultural Chemist* (1942).

SIDNEY LONGMAN GALPIN, PH. D., *Hydrologist* (1938), 1927.

EDWIN GOULD,[3] B. S. AGR., *Associate Entomolgist, In Charge of University Experiment Farm (P. O. Kearneysville)* (1938), 1929.

HARRY ORAM HENDERSON, PH. D., *Dairy Husbandman* (1928), 1919.

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[1]On leave for Military Service.
[2]On leave of absence, 1944-45.
[3]In cooperation with the United States Department of Agriculture.
[4]Resigned May 31, 1944.
[5]Resigned July 31, 1944.
[9]On leave, January 1 to June 30, 1945.
[10]Resigned June 30, 1945.
[11]Resigned May 31, 1945.

TORKEL HOLSOE,[1] M. F., *Assistant Forester* (1938).

HAROLD MARTENEY HYRE, M. S., *Associate Poultry Husbandman* (1944).

GERALD JENNY, M. S., *Agricultural Editor* (1929).

JOHN CHARLES JOHNSTON, *Assistant to the Director* (1943), 1914.

JULIAN GILBERT LEACH, PH. D., *Plant Pathologist* (1938).

LEON H. LEONIAN,[12] PH. D., *Mycologist* (1934), 1922.

VIRGIL GREENE LILLY, PH. D., *Assistant Physiologist* (1937), 1927.

EDWARD ALEXANDER LIVESAY, D. SC., *Animal Husbandman* (1919).

CONLEY VERNON LOWTHER,[1] M. S., *Assistant in Plant Pathology* (1944).

PAUL LYON, *Technical Aid in Biochemistry* (1944).

THEODORE CLINTON MCILVAINE,[3] PH. D., *Associate Agronomist, In Charge of Lakin Experiment Farm (P. O. Lakin)* (1934), 1917.

LOUIS JOHN MANUS,[1] M. S., *Assistant in Dairy Husbandry* (1936), 1932.

ABRAHAM STANLEY MARGOLIN, PH. D., *Assistant in Hill-culture Research* (1944), 1934.

RAY STANLEY MARSH, M. A., *Horticulturist* (1936).

ELDOR A. MARTEN,[6] PH. D., *Associate Bacteriologist* (1941), 1936.

EARL NEIL MOORE,[7] D. V. M., *Assistant Animal Pathologist* (1937).

OLIVER MEADER NEAL, JR.,[1] B. S., *Assistant in Horticulture* (1942).

CHARLES THOMPSON NEFF, JR., A. B., *Treasurer* (1934).

WILBUR MARK NELSON, A. R. P. S., *Photographer* (1939).

HELEN M. PAVLECH, B. S. ED., *Assistant in Animal Husbandry* (1943).

LEONARD MARION PEAIRS, PH. D., *Entomologist* (1912).

W. CLEMENT PERCIVAL, PH. D., *Forester* (1939), 1934.

GEORGE GORDON POHLMAN, PH. D., *Agronomist* (1938), 1930.

DEXTER NEVINS PUTNAM,[1] M. S., *Assistant in Dairy Husbandry* (1940), 1938.

JOHN HARRISON RIETZ, D. V. M., *Animal Pathologist* (1937), 1927.

TOM DOYLE RUNNELS,[1] M. S., *Assistant in Poultry Husbandry* (1940), 1938.

MARY ALICE RYAN, A. B., *Assistant in Plant Pathology* (1944).

WILSON BROWN SAYERS,[11] B. S. FOR., *Assistant Forester* (1943).

FRANK WILLARD SCHALLER, M. S., *Assistant in Agronomy* (1939), 1937.

BURCH H. SCHNEIDER, PH. D., *Associate Animal Husbandman* (1938).

CHARLES ELLSWORTH STOCKDALE, B. S. AGR., M. S. AGR., *Associate Agricultural Economist* (1944), 1916.

RICHARD HUYETTE SUDDS, PH. D., *Associate Horticulturist* (1940), 1937.

MYRTLE SWANSON, M. A., *Assistant in Home Economics* (1944).

CARLTON FULTON TAYLOR, PH. D., *Assistant Plant Pathologist* (1938).

EDWARD HENRY TYNER, PH. D., *Associate Agronomist* (1943), 1938.

AUDREY HOWARD VANLANDINGHAM, PH. D., *Associate Chemist* (1941), 1929.

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[1]On leave for Military Service.
[3]In cooperation with the United States Department of Agriculture.
[6]Resigned August 31, 1944.
[7]Resigned June 30, 1944.
[11]Resigned May 31, 1945.
[12]Deceased June 7, 1945.

COLLINS VEATCH, PH. D., *Associate Geneticist* (1945).

CHARLES EDWARD WEAKLEY, JR., M. A., *Associate Chemist* (1938), 1907.

KYLE CHESTER WESTOVER, PH. D., *Associate Horticulturist* (1936), 1921.

CHARLES VINYARD WILSON, M. S., *Associate Animal Husbandman* (1938), 1919.

ERNEST THOMAS WIGHTMAN,[8] M. S. AGR., *Assistant Poultry Husbandman* (1934), 1924.

## THE WEST VIRGINIA AGRICULTURAL EXTENSION DIVISION STAFF

JOHN OLIVER KNAPP,[3] B. S. AGR., *Director* (1938), 1917.

WALTER WARDLAW ARMENTROUT,[2] PH. D., *Extension Economist* (1941).

BRYANNA BURTON BERGNER,[3] B. S. H. E., *Associate State Girls' Club Agent* (1944).

WILMA CHARLOTTE BEYER,[3] A. B., M. A., *State Girls' Club Agent* (1942).

CHARLES FRANKLIN BISHOP,[3] M. S., *Assistant Extension Plant Pathologist* (1944), 1940.

ROBERT STUART BOAL,[3] B. S., *Acting Extension Economist* (1944).

ANNA MILDRED BOGGS,[3] A. B., *Assistant State Leader, Home Demonstration Work* (1936), 1927.

IRA BROOKS BOGGS,[3] *State Boys' Club Agent* (1933), 1929.

KENNETH R. BOORD,[3] *Editorial Assistant* (1943).

LELAND BOOTH, B. S. AGR., *Associate Extension Editor* (1933).

HERMAN M. BOWERS,[3] B. S. AGR., *District Agent* (1942), 1929.

ROGER LEE CHAMBLISS, JR.,[1] M. S., *Assistant in Land-use Planning* (1941).

HELEN LOUISE CHAMPNELLA,[3] B. S. IN JOUR., *Assistant Extension Editor* (1945), 1944, 1943.

JAMES HARRIS CLARKE,[1] M. S., *Assistant Extension Economist* (1939).

ELOISE SNOWDEN COFER,[3] A. B., M. S., *Extension Specialist, Foods and Nutrition* (1942).

WILLIAM HOWARD CONKLE,[3] M. S., *Extension Specialist in Vegetable Gardening* (1943), 1941.

BENJAMIN FRANKLIN CREECH,[3] B. S. AGR., *State Supervisor, Emergency Farm Labor* (1943), 1919.

ELIZABETH DORSEY,[3] B. S. H. E., *Emergency Extension Supervisor* (1944).

CARLTON P. DORSEY,[3] B. S. AGR., *Assistant State Supervisor, Emergency Farm Labor, VFV* (1943), 1927.

R. FRANKLIN DUGAN,[3] M. F., *Extension Specialist in Wildlife Management* (1944), 1942.

KENNETH J. ESTEY,[1] B. S., *Assistant Extension Dairy Husbandman* (1944), 1941.

JANE FARWELL,[3] A. B., *Assistant Recreation Specialist (P. O. Oglebay Park, Wheeling)* (1940).

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[1]On leave for Military Service.
[2]On leave of absence, 1944-45.
[3]In cooperation with the United States Department of Agriculture.
[8]Resigned October 31, 1944.

MIRIAM FOLTZ,[5] B. S. H. E., *Extension Radio Assistant (P. O. Wheeling)* (1944).

RAY JEROME FRIANT,[3] B. S., *Extension Agronomist* (1929), 1922.

RUSSELL HENDERSON GIST,[3] B. S. AGR., *State Agent* (1933), 1924.

AUSTIN GERALD GOTH,[6] M. S., *Extension Economist* (1937).

THOMAS DAVIS GRAY,[3] B. S. HORT., *Rural Organization Specialist* (1944), 1920.

CHARLES HENRY HARTLEY,[3] B. S. AGR., *State Club Leader* (1933), 1914.

GERALD HEEBINK,[3] M. S., *Extension Dairy Husbandman* (1935).

HARRY ORAM HENDERSON, PH. D., *Dairy Husbandman* (1933).

GERTRUDE HUMPHREYS,[3] A. B., *State Leader, Home Demonstration Work* (1928), 1918.

ARNOLD LOUIS KELLER,[7] M. S. AGR., *Extension Horticulturist in Vegetable Gardening* (1936).

JULIAN GILBERT LEACH, PH. D., *Plant Pathologist* (1938).

JESSIE FORTNEY LEMLEY,[3] B. S. H. E., *Assistant State Leader, Home Demonstration Work* (1942), 1922.

EDWARD ALEXANDER LIVESAY, D. SC., *Animal Husbandman* (1933).

JANE LYMAN, A. B., *Assistant Extension Editor, Radio* (1945).

RAY STANLEY MARSH, M. A., *Horticulturist* (1936).

CHARLES THOMPSON NEFF, JR., A. B., *Comptroller* (1934), 1927.

WILBUR MARK NELSON,[3] A. R. P. S., *Photographer* (1939).

CHARLES K. PECK,[3] B. S. FOR., *Extension Forester* (1943), 1942.

HUGH WILLARD PRETTYMAN,[3] B. S. AGR., *Extension Horticulturist in Marketing (P. O. Inwood)* (1917).

WILLIAM HAVARD ROBERTS,[3] B. S., *District Agent* (1935).

WILSON BROWN SAYERS,[3] B. S. FOR., *Assistant Extension Forester* (1943).

WALTER CLINTON SCHNOPP,[8] B. S. AGR., *Extension Editor* (1929), 1923.

GEORGE SHARPE,[3] B. S. AGR., M. S., *Extension Soil Conservationist* (1944), 1930.

EDWARD LEE SHAW, B. S. AGR., *Extension Sheep Specialist* (1917).

EVERETT CLIFTON SHERWOOD,[3 4] M. S., *Extension Plant Pathologist* (1920).

FRED T. SPEROW,[3] B. S. AGR., *Assistant Extension Poultryman* (1943).

JOHN R. VAUGHN,[1] B. S., M. S., *Assistant Extension Plant Pathologist* (1941).

GLADYS WASMUTH,[3] M. S., *Extension Specialist in Home Management* (1941), 1935.

CHARLES VINYARD WILSON,[3] M. S., *Acting Extension Animal Husbandman* (1943), 1919.

EDWARD WOODWARD,[3] *Extension Editor* (1945).

## THE MINING AND INDUSTRIAL EXTENSION STAFF

GAROLD RALPH SPINDLER,[2] B. S. E. M., E. M., *Assistant Director of Mining Extension and Director of Fire Service Extension Schools* (1938), 1934.

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[1]On leave for Military Service.
[2]On leave of absence, 1944-45.
[3]In cooperation with the United States Department of Agriculture.
[4]In cooperation with the State Department of Agriculture.
[5]Resigned February 1, 1945.
[6]Resigned March 15, 1944.
[7]Resigned March 31, 1944.
[8]Resigned June 30, 1944.

WILLIAM ANDERSON STAAB,[3] E. M., *Associate Professor of Mining Engineering* (1939), 1926.

CHARLES T. HOLLAND, B. S. E. M., M. S., *Assistant Professor of Mining Engineering and Instructor in Mining Extension* (1941), 1930.

ROBERT FRANKLIN DAVISSON,[1] B. S. E. M., *Instructor in Oil and Gas Engineering* (1941).

A. PAGE DICKENS, *Instructor in Mining Extension* (1937).

ROSCOE ELTON HANNA, JR., B. S., *Instructor in Industrial Extension* (1944).

JOSEPH DWIGHT MCCLUNG, B. S. E. E., *Instructor in Mining Extension* (1941).

JOHN ROBERT MERCER,[4] B. S. C. E., *Instructor in Industrial Extension* (1941).

J. S. POUNDSTONE, *Instructor in Mining Extension* (1924).

W. H. STEEN, *Instructor in Mining Extension* (1935).

HERMAN DAVID SYDENSTRICKER,[5] A. B., *Instructor in Mining Extension* (1941).

W. B. TALBOTT, *Instructor in Mining Extension* (1927).

HOBART WATSON, *Instructor in Mining Extension* (1925).

## THE MILITARY STAFF

GERALD GRIFFIN, A. B., LIEUTENANT COLONEL, INFANTRY (1944).

HENRY M. BETTGE, B. S. M. E., CAPTAIN, COAST ARTILLERY CORPS (1944).

IVAN M. WALKER, CAPTAIN, FIELD ARTILLERY (1944).

PAUL E. DESGUIN, B. S., FIRST LIEUTENANT, SIGNAL CORPS, (1942).

ARTHUR C. MORRIS, FIRST LIEUTENANT, INFANTRY (1944).

ELLSWORTH F. BLOOD, B. E., FIRST LIEUTENANT, ARMY OF THE UNITED STATES (1944).

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JOHN W. CAULFIELD, MASTER SERGEANT, D. E. M. L. (1943).

JAMES F. KAST, MASTER SERGEANT, D. E. M. L. (1944).

ALFRED H. ORTMANN, STAFF SERGEANT, D. E. M. L. (1942).

ARTHUR P. THRASHER, STAFF SERGEANT, D. E. M. L. (1943).

LELAND H. LEAMKEY, SERGEANT, D. E. M. L. (1942).

ANTHONY R. MARTINOLICH, SERGEANT, D. E. M. L. (1943).

## THE ATHLETIC STAFF

ROY M. HAWLEY, A. B., *Director of Intercollegiate Athletics* (1938), 1935.

JOHN L. BRICKLES,[5] M. A., *Basketball Coach* (1944).

ALLAN BABCOCK, *Office Manager and Director of Publicity* (1944).

FORREST B. CRANE,[1] A. B., *Office Manager and Director of Publicity* (1942).

GLENNIS ELLIS, B. S., *Assistant Football Coach* (1942).

ALBERT C. GWYNNE,[1] A. B., *Coach in Wrestling* (1934).

WILLIAM FRANKLIN KERN,[1] A. B., *Coach in Football* (1940).

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[1]On leave for Military Service.
[3]Resigned February 15, 1945.
[4]Resigned September 30, 1944.
[5]Resigned March 31, 1945.

SAMUEL JOHN MORRIS, M. D., *Medical Adviser* (1935).

WILLIAM E. NEELY, A. B., LL. B., *Boxing Coach* (1939).

RICHARD A. RAESE,[1] A. B., *Varsity Basketball Coach* (1938).

IRA ERRETT RODGERS, A. B., *Coach in Football, Acting Head and Head Coach in Baseball* (1943), 1920.

ARTHUR NEWELL SMITH, A. B., *Coach in Track Athletics, Cross-country, and Athletic Trainer* (1931), 1923.

LOWRY MCELVAINE STOOPS, *Assistant Director of Intercollegiate Athletics* (1925).

## THE ATHLETIC BOARD

FACULTY MEMBERS: MISS GRIFFIN (chairman), MESSRS. GRUMBEIN, STEMPLE, WHEAT, and WESTOVER.

ALUMNI MEMBERS: DR. C. B. PRIDE, Morgantown, and MR. FRED E. DEEM, Clarksburg.

DIRECTOR OF INTERCOLLEGIATE ATHLETICS: MR. HAWLEY.

EXECUTIVE COMMITTEE: MISS GRIFFIN, MESSRS. HAWLEY, PRIDE, and STEMPLE.

FINANCE COMMITTEE: MISS GRIFFIN, MESSRS. GRUMBEIN, HAWLEY, and PRIDE.

## THE STANDING COMMITTEES*

### The University

COMMITTEE ON STUDENT AFFAIRS (GENERAL): MR. ASPINALL, Director of Student Affairs (chairman); and the chairman of each of the following sub-committees: convocations, discipline, student residences, social affairs, University calendar, student publications, student body, student organizations, and prizes, scholarships, and loans.

(The Director of Student Affairs is a member *ex officio* of all the sub-committees on social affairs.)

CONVOCATIONS AND PUBLIC EXERCISES: MESSRS. ASPINALL, CROCKER, CUTHBERT, and HARRIS; student members, PATRICIA STANSBURY and FRANK YOKE, JR.

DISCIPLINE: MESSRS. LAZZELL and STICKNEY; MISS STALNAKER.

FRATERNITY AND SORORITY SCHOLASTIC RECORDS: MESSRS. PEAIRS, LONG, and SEMON; MRS. COLE.

OFF-CAMPUS SCHEDULES: MESSRS. ASPINALL, SHORTRIDGE, and HAYMAN.

PRIZES, SCHOLARSHIPS, AND LOAN FUNDS: MESSRS. ASPINALL, DADISMAN, BRAWNER, CUTHBERT, STONE, BROOKS, CROCKER, and KOEHLER; MISSES ARNOLD and GRIFFIN; MRS. PETTIGREW.

[1]On leave for Military Service.
*The first-named member serves as chairman.

SOCIAL AFFAIRS: MESSRS. DARBY, MORRIS, GRIFFIN, CORNELL, and WOOD; MISSES ARNOLD, PALMER, and HURST; student members, HELEN KETCHUM, LAURELLA JUNE RITCHIE, JAMES AMOS, and JOHN CHARLES MURPHY.

STUDENT BODY: JAMES LEE THOMPSON, president; GRACE ANNE KEYSER, vice-president; WILLIAM PRICE, Senior representative; MARIAN WILSON, Senior representative; ROBERT LEWIS, Junior representative; ELEANOR LENORE MCCOMAS, Junior representative; MARY JO THOMPSON, Senior Class president; MARGARET E. GUNNING, Junior Class president; DANIEL MORRIS, Sophomore Class president; WILLIAM BIBB, Freshman Class president.

STUDENT FEE FUND: MR. ASPINALL and MISS ARNOLD; student members, JAMES LEE THOMPSON, GEORGE MAY, and BETTY HOGAN.

STUDENT ORGANIZATIONS: MESSRS. STEMPLE, DUSTMAN, and FRIDLEY; MISS TURNER; MRS. SHAFFER.

NEW RESIDENCES: MESSRS. ASPINALL, NEFF, and DICKINSON.

STUDENT PUBLICATIONS: MESSRS. REED, SPIKER, HAWLEY, KOEHLER, BABCOCK, PEAIRS, and HARDMAN; student members, EMMA JOSEPHINE HILL and MARJORIE LAMB.

STUDENT RESIDENCES: MESSRS. ASPINALL, WOOD, STONE, DEANGELIS; MISSES ARNOLD and WADDELL; student members, MARY JO THOMPSON and CHARLES UNKOVICH.

AVIATION: MESSRS. FORMAN, ASPINALL, HODGE, and DAVIS.

BUILDINGS AND GROUNDS: MESSRS. GRUMBEIN and DYE.

COUNCIL ON BIOLOGY: MR. DODDS and representatives from all departments, colleges, and schools engaged in work in any phase of the field of biology.

ENTRANCE: The Registrar and the deans and directors of all colleges and schools admitting freshmen.

EXTENSION: MESSRS. ASPINALL, DADISMAN, HUDELSON, HOLLAND, ORTON, and SHORTRIDGE.

GUIDANCE OF PROSPECTIVE TEACHERS: MR. ASHBURN; a representative of the English or Public Speaking department; a representative from the Committee on Teacher Training.

INDUSTRIAL EDUCATION AND RESEARCH: MESSRS. CLARK, COLWELL, DAVIS, HODGE, and ORTON.

INSTRUCTIONAL POLICIES AND PRACTICES: MESSRS. COLLETT, PEAIRS, SPIKER, and SPRAY.

LATIN AMERICA: MESSRS. DADISMAN, AMBLER, ASHBURN, ASPINALL, MANNING, and SHORTRIDGE.

LIBRARY: MESSRS. KELLAM, AMBLER, ARNETT, COLWELL, DODDS, SEIBERT, JACOBSON, JOHNSON, and PEAIRS.

MILITARY AND PHYSICAL EDUCATION BOARD: MESSRS. GRIFFIN and LAWLESS; MISS GRIFFIN.

POST-WAR INTERNATIONAL PROBLEMS: MESSRS. LAZZELL, BROOKS, CRESSWELL, EASTON, ROBERTS, SAPOSNEKOW, SCHNEIDER, and TOWER; MISS NOER.

PUBLICATIONS: MESSRS. LONG, DICKINSON, HODGE, JENNY, JOHNSON, PEAIRS, and REED.

RADIO: MESSRS. BROOKS, JENNY, KELLAM, SUMMERS, SUNLEY, and VEST; MISS SORELLE.

RESOURCES OF THE STATE: MESSRS. ORTON, CLARK, HOLLAND, and SUNLEY.

STUDENT ENGLISH: MESSRS. JOHNSON, BISHOP, BOOMSLITER, PEAIRS, and EASTON.

SUMMER SESSION: MESSRS. DADISMAN, LONG, HUDELSON, ORTON, and SHORTRIDGE.

TEACHER TRAINING: MESSRS. DADISMAN, BROOKS, CHITWOOD, COLEBANK, DARBY, L. B. HILL, JOHNSON, KELLAM, KOEHLER, and PARSONS; MISSES DEATRICK, GRIFFIN, HINKEL, and NOER.

UTILIZATION OF BUILDINGS AND EQUIPMENT: MESSRS. BALDWIN, GRUMBEIN, HUBERT HILL, and LONG.

VISUAL EDUCATION: MESSRS. ALLEN, ASHBURN, JENNY, KELLAM, LEACH, and SEIBERT.

WAR ACTIVITIES: MESSRS. SHORTRIDGE, HODGE, HARDMAN, LONG, and DAVIS.

## The Colleges

SCHOLARSHIP:

*College of Agriculture:* MESSRS. POHLMAN and PERCIVAL and MISS NESBITT.

*College of Arts and Sciences:* MESSRS. WINTER, FORD, HARRIS, S. MORRIS, SPIKER, and SMITH.

*College of Education:* MISS POLLOCK and MESSRS. HILL and STEMPLE.

*College of Engineering and Mechanic Arts:* MESSRS. HALL, KOEHLER, and C. H. CATHER.

*School of Journalism:* MESSRS. REED and BELL; MISS SORELLE.

*School of Medicine:* MESSRS. DODDS, CHANDLER, FENTON, and MCLACHLAN.

*School of Music:* MESSRS. CUTHBERT and WOOD and MISS HINKEL.

*College of Pharmacy:* MESSRS. HAYMAN, BERGY, GEILER, and WOJCIK.

*School of Physical Education and Athletics:* MISSES GRIFFIN and HURST; MESSRS. SEMON and TORK.

NOTE: For all other college committees see the announcements of the respective college or school in Part III of this Catalogue.

## Fraternity Advisers

Beta Theta Pi, A. M. REESE; Delta Tau Delta, CARL M. FRASURE; Kappa Alpha, C. R. BISHOP; Kappa Sigma, A. J. DADISMAN; Phi Delta Theta, ROBERT COLWELL; Phi Kappa Psi, KENNETH WOOD; Phi Kappa Sigma, CHARLES L. LAZZELL; Phi Kappa Tau, DANA WELLS; Phi Sigma Delta, L. R. GRIBBLE; Phi Sigma Kappa, J. O. KNAPP; Pi Kappa Alpha, R. H. WHERRY; Pi Lambda Phi, G. P. BOOMSLITER; Sigma Chi, PAUL H. PRICE; Sigma Nu, RUSSELL H. GIST; Sigma Phi Epsilon, H. G. WHEAT.

## Sorority Supervision

Supervision of all sororities (see page 79) on the campus is vested in the Office of the Dean of Women.

# Part II
# General Information*

## HISTORY

West Virginia University originated from the National Land-Grant (Morrill) Act of July 2, 1862, and the subsequent action of the Legislature in accepting and carrying out the provisions of the Act. On January 9, 1866, the board of trustees of the Monongalia Academy at Morgantown tendered to the Legislature, for use of the contemplated state or land-grant college, all its property, including Woodburn Female Seminary, on condition that the college should be located at Morgantown. On January 30, 1867, the Legislature accepted the property and on February 7 passed an act permanently establishing "The Agricultural College of West Virginia" and authorizing the Governor to appoint 11 suitable persons as a Board of Visitors.

The Visitors held their first meeting on April 3, 1867, at which time they appointed Dr. Alexander Martin president and established collegiate, scientific, and agricultural departments of instruction. Military training was introduced at this time under the provisions of the Morrill Act.

By an act of December 4, 1868, the name of the College was changed to "West Virginia University" and the "Board of Visitors" to the "Board of Regents." On July 1, 1919, the "Board of Regents" was merged in the "State Board of Education." By an act passed April 14, 1927, the control of the University was vested in a "Board of Governors."

Following the establishment of the University, expansion was rapid. The College of Law was added in 1878; the College of Engineering and Mechanic Arts in 1887; the Agricultural Experiment Station in 1888; the College of Agriculture and the School of Music in 1897; and the School of Medicine in 1902.

With the opening of the new century a period of consistent growth was entered upon. A Department of Pharmacy was added to the School of Medicine in 1914; in the same year the Department of Home Economics, until then a unit in the College of Arts and Sciences, was transferred to the College of Agriculture. The Division of Agricultural Extension was organized in 1912, and Liberal Arts extension centers were established as early as 1916.

In 1917 an extensive building program was inaugurated, which has added eight major units to the Campus. The Engineering Experiment Station was organized in 1921 and the School of Mines in 1926. In 1927 the work in Education, hitherto administered as a department of the College of Arts and Sciences, was transferred to the newly-created College of Education. In 1928 the Division of Physical Education was created.

*NOTE: West Virginia University reserves the right, without further notice to revise the organization, fees, offerings, and requirements herein announced.

Paralleling this development, faculties were methodically strengthened, curricular adjustments steadily undertaken, and foundations laid for social, industrial, and scientific research agencies as bases for still broader fields of service. The movement culminated in the order of the Board of Governors of January, 1930, providing for the establishment of a Graduate School looking beyond the degrees of Master of Arts and Master of Science, which the University had steadily conferred for half a century, to the more advanced curricula leading to the degree of Doctor of Philosophy.

In 1936 the Department of Pharmacy was discontinued as a unit in the School of Medicine and was established as a College of Pharmacy. A year later the Division of Physical Education and the Department of Athletics were combined to form the School of Physical Education and Athletics. The Course in Forestry, begun in 1935 as a two-year course in the College of Agriculture, in 1937 was enlarged to a full four-year course enabling this college to grant the degree of Bachelor of Science in Forestry. The unit then became the College of Agriculture, Forestry, and Home Economics. In 1939 the Department of Journalism was discontinued as a unit in the College of Arts and Sciences and was made the School of Journalism. In the same year a Department of Art was established in the College of Arts and Sciences. The Department of Social Work was authorized in 1943 to offer undergraduate work leading to the degree of Bachelor of Science (Social Work) and on the graduate level a one-year Social Work curriculum leading to a Professional Certificate of Social Work. A new four-year course offered by the College of Arts and Sciences and the School of Medicine leading to the degree of Bachelor of Science (Medical Technology) was approved in 1944.

The University has had 12 regular presidents: Alexander Martin, 1867-1875; John W. Scott (acting), 1875-1877; John Rhey Thompson, 1877-1881; Daniel Boardman Purinton (acting), 1881-1882; William L. Wilson, 1882-1883; Robert C. Berkeley (Chairman of the Faculty), 1883-1885; Eli Marsh Turner, 1885-1893; Powell Benton Reynolds (acting), 1893-1895; James L. Goodnight, 1895-1897; Jerome Hall Raymond, 1897-1901; Daniel Boardman Purinton, 1901-1911; Thomas Edward Hodges, 1911-1914; Frank Butler Trotter (acting), 1914-1916; 1916-1928; John Roscoe Turner, 1928-1935; Robert Allen Armstrong (acting), 1935; Chauncey Samuel Boucher, 1935-1938; Charles Elmer Lawall (acting), 1938-39; 1939-.....

## LOCATION

West Virginia University is located in Morgantown, the county seat of Monongalia, south of the Mason-Dixon line where it forms the boundary line between southwestern Pennsylvania and northern West Virginia.

Morgantown is 11 hours by rail from New York City, 12 hours from Chicago, and three hours from Pittsburgh. It may be reached from the east and west through Grafton, West Virginia; Connellsville, Pennsylvania; or Greensburg, Pennsylvania. It is served by two railroads, the Baltimore and Ohio and the Monongahela, which is owned jointly by the Baltimore and Ohio, the Pennsylvania, and the Pittsburgh and Lake Erie (New York Central System).

Motorists can reach Morgantown from the National Pike (U. S. Route 40) through Uniontown or Washington, Pennsylvania; Wheeling, West Virginia; or Cumberland, Maryland; and from the Northwestern Turnpike (U. S. Route 50) by way of Oakland, Maryland, or Grafton, West Virginia.

Morgantown is connected with the national network of motorbus lines through the Blue Ridge (Greyhound) and West Virginia Transportation Company (Baltimore and Ohio Railroad) systems. Morgantown is also served by the Pennsylvania-Central Airlines, which offers frequent service.

## THE PHYSICAL PLANT

West Virginia University's Campus comprises about 66 acres near the center of Morgantown on high ground overlooking the river and much of the surrounding countryside. The physical plant includes 34 state-owned buildings or structures on the Campus, five demonstration and experimental farms near Morgantown, three experimental farms and two agricultural extension centers located at suitable points throughout the state, a summer surveying camp for Civil and Mining Engineering students, and a summer camp for Forestry students.

The structures on the main Campus, with dates of construction or acquisition, are: Martin Hall (1870), Experiment Station Building (1873), Woodburn Hall (1874), Commencement Hall* (1889), Science Hall (1893), Mechanical Hall (1902), Armory (1902), Old Library (1902), President's House (1905), Heating Plant (1906), Music Building (1914), Horticulture Greenhouse (1915), Medical Building (1916), Oglebay Hall (1918), Oglebay Annex (1933 and 1937), Women's Hall (1919), Plant Pathology Greenhouse (1920), Law Building (1923), Mountaineer Field (1924), Cafeteria (1924), Hall of Chemistry (1925), Men's Field House (1928), Elizabeth Moore Hall (1928), University Library (1931), University Rural High School (1933), two wings to Women's Hall (1935), Men's Dormitory (1935), Mineral Industries Building (1942), University Health Center (1942), Terrace Hall (1942), Home Management House (1942), and Library Commission (formerly Health Service) (1942).

The farms, with dates of acquisition, are: Dairy Husbandry Farm, 175 acres (1899) and 29.5 acres (1941); Horticulture Farm, 62.5 acres (1916); Animal Husbandry Farm, 321 acres (1916) and 262.5 acres (1941), including a portion for poultry husbandry; Agronomy Farm, 102 acres (1916); and Poultry Husbandry Farm, 20 acres (1916), all near Morgantown; University Experiment Farm at Kearneysville, Jefferson County, 158 acres (1930); Reymann Memorial Farms at Wardensville, Hardy County, 930 acres (1917) and 57 acres (1943); Lakin Experiment Farm at Lakin, Mason County, 74 acres, leased from the State Board of Control (1921); Reedsville Experiment Farm, Preston County, 457 acres (1944).

The agricultural extension centers, with the dates of establishment, are: the 4-H Club Camp at Jackson's Mill, Lewis County (1921), and the Recreation Center at Oglebay Park, Ohio County (1926).

*Remodeled in 1939 and rededicated as "Powell Benton Reynolds Hall" in 1940.

## FUNDS

The funds for maintaining the University, the Agricultural Experiment Station, the Engineering Experiment Station, and the Agricultural Extension Division are derived from the following sources: (1) Interest on the land-grant endowment of $115,750; (2) the Morrill-Nelson fund; (3) the Hatch fund; (4) the Adams fund; (5) the Smith-Hughes and the Smith-Lever funds; (6) the Purnell fund; (7) the Capper-Ketcham fund; (8) the Bankhead-Jones fund (9) the Clark-McNary fund; (10) biennial appropriations by the Legislature; (11) fees and tuition; (12) income derived from the work of the Agricultural Experiment Station and the College of Agriculture as well as the income from dormitories, dining halls, bookstore, student activities, etc.; and (13) contributions by private benefactors for the support of scholarships, loan funds, and prizes.

## GOVERNMENT AND ORGANIZATION

The financial and business affairs of the University, as well as of all other state institutions, are directed by the *West Virginia Board of Control.* This board is composed of three members, all of whom are appointed by the Governor, who also designates one member to be the Board's president.

The academic control of the University is vested in the *Board of Governors.* The Board is bi-partisan and consists of seven members who are appointed by the Governor for a term of four years.

West Virginia University is on the approved list of the Association of American Universities and is a member of The North Central Association of Colleges and Secondary Schools.

The University year is divided into two semesters of 18 weeks each and a Summer Session of two terms of approximately six weeks each.

Matters of policy concerning the several instructional units of the University are recommended to the Board of Governors by the *Council of Administration,* composed of the president, the registrar, and the deans and directors of all colleges and schools, as well as other administrative officers who may be called to take part in the deliberations of the Council.

The *University Senate,* a legislative body with original jurisdiction over all matters that concern the entire University and all matters that concern more than one college or division, is composed of the president, the registrar, all professors of full rank in all colleges, schools, and divisions, and all heads of departments.

The *Graduate Faculty,* composed of all members who teach courses on the graduate level, sets the specific requirements and standards of quality for admission to candidacy for graduate degrees and for the award of graduate degrees. For a list of members of the *Graduate Council* see page 8.

The *Committee on Student Affairs* acts as an integral part of the whole organization of the University. Its program is bound up with that of the University as a whole, designed to serve the larger academic and social objectives of modern education. For a list of members see page 27.

### The Colleges and Schools

The organization of the University, together with the dates of the establishment of the various colleges, etc., follows:

Colleges: College of Arts and Sciences, 1867; College of Law, 1878; College of Engineering and Mechanic Arts, 1887; College of Agriculture, 1897; College of Education, 1927; College of Pharmacy, 1936.

Schools: School of Music, 1897; School of Medicine: Courses in Medicine, 1902; School of Mines, 1926; Graduate School, 1930; the Summer Session, 1898; School of Physical Education and Athletics, 1937; School of Journalism, 1939.

Divisions: Division of Military Science and Tactics, 1867; Division of Forestry, 1937; Division of Home Economics, 1937.

Experiment Stations and Research Bureaus: Agricultural Experiment Station, 1888; Engineering Experiment Station, 1921; Bureau for Government Research, 1931; Division of Documents, 1934.

Extension Service: Agricultural Extension, 1912; Mining and Industrial Extension, 1914; Liberal Arts Extension, 1916; Extension in Education, 1916.

The College of Agriculture, Forestry, and Home Economics; the College of Arts and Sciences; the College of Engineering and Mechanic Arts; the College of Pharmacy; the School of Mines; the School of Music; and the School of Physical Education and Athletics are all degree-granting units admitting freshmen. The College of Education, the College of Law, the School of Journalism, and the School of Medicine are professional colleges and schools requiring from two to three years of academic training as a foundation for professional work. All graduate instruction is administered by the Graduate Council and the Graduate Faculty.

A full description of the organization and offerings of the colleges and schools of the University is found in Part III of this Catalogue.

### The Summer Session

The forty-seventh Summer Session of the University will be held from June 4 to August 24, 1945. The session will be made up of two terms of six weeks each.

The requirements for admission and the character of the work offered are the same for the Summer Session as for the regular year.

Credit may be obtained towards the Bachelor's and Master's degree in most of the departments and schools. Offerings are varied from summer to summer so that students may complete the work for the Master's degree by attending summer sessions only.

The University Rural High School will be in operation during the first nine weeks for secondary-school student teaching, practice supervision, and observation. The University Laboratory Elementary School will be in operation during the first six weeks for elementary-school observation and practice supervision.

For complete description of courses, see the *Summer Session Bulletin.*

### The Division of Military Science and Tactics

(1) *Requirements:*

West Virginia University, a beneficiary of the Act of Congress of 1862, offers, in time of peace, a four-year course of instruction in military science and tactics. Military training was established in 1867 at the University's inception. The four-year course comprises two years of basic and two years of advanced training. Only the basic course training is offered at this time.

All male students not specifically exempt by the provisions of paragraph 4 (below) are required by chapter eighteen, article eleven, of the official code of West Virginia, and by orders of the Board of Governors of the University promulgated pursuant thereto, to complete to the satisfaction of the professor of military science and tactics two years (four semesters) of basic military training (*i.e.,* Military Science 1, 2, 3, 4). Completion of the two-year basic course in military science and tactics is required for graduation.

(2) *The Curriculum:*

The first two years of instruction in military science and tactics comprise the basic course. All male students not specifically exempt are required to enroll and pursue this course. Satisfactory completion thereof is a requisite for graduation. Instruction is given for five hours a week throughout the school year. Two (2) hours' credit is awarded for each semester's work satisfactorily completed during the first and the second year's course.

(3) *Expenses:*

Every student enrolling in military science must anticipate certain expenses incident to pursuance of this course. The average cost is detailed below:

| | |
|---|---|
| Military deposit | $10.00 |
| Socks (khaki-colored, cotton and wool) | 1.25 |

The Military deposit is required of each student enrolled in the Division of Military Science and Tactics to cover any loss or damage of Government property occasioned by the fault or neglect of the student. This sum ($10.00), less such deductions as are made for the loss or damage of Government property or for other reasons, will be refunded to the cadet at the expiration of the school term upon return of the property. The Military deposit is paid to the Comptroller at the time of registration.

(4) *Exemptions:*

The following classes of students shall not be required to enroll themselves in the Division of Military Science and Tactics but may elect to do so:

(i) Students who are citizens of a foreign country and who do not intend to become citizens of the United States.

(ii) All students who at the date of entrance into the University are more than 23 years of age, and former students over 23 years of age who reenter the University after an absence of three years.

(iii) All graduate students.

(iv) All students whose studies are entirely in the School of Music.

(v) All students who are taking only the short course, or the special winter course, or extension work in the University.

(vi) All students who at the time of matriculation have completed not less than 58 hours of work, and all who have completed the two-year Basic Course in Military Science at an institution having a senior unit of the ROTC. Those having completed one, two, or three semesters in a senior unit will be exempt from a like number of semesters. Each Citizens' Military Training Camp successfully completed may be used for an exemption from one semester. In the latter case, however, the student will not be eligible to enroll in the Advanced Course (third and fourth years).

(vii) All students who are physically unable to perform military duty.

Exemptions for cases (i) to (vi) will be determined by the adviser from the student's records. Claims for exemption under (vii) will be acted upon by the University physician.

(5) *Organization:*

The Division is in charge of and instruction is directed by an officer of the United States Army detailed by the War Department as Professor of Military Science and Tactics. His staff is composed of officers and non-commissioned officers—all United States Army personnel.

(6) *The University Band:*

In time of peace, the University Band functions under the Military Division, the responsible head being the Professor of Military Science and Tactics. Membership is drawn from all classes, including graduate students, of the various schools and colleges of the University.

Places in the band are determined by audition, and the members concerned take the required military training as may be determined by the Professor of Military Science and Tactics.

Band instruments are furnished by the Federal and State Governments. After completing two years in the band, especially qualified bandsmen may continue service in the band upon invitation, and receive allowances in the form of remission of certain fees.

The University Band is not, at the present time, in operation.

(7) *Awards:*

Awards for excellence in military science and tactics are not offered at the present time.

(8) *Uniform:*

A uniform for each cadet is furnished by the Federal Government. Shoes must be provided by the student. Socks, khaki-colored, either cotton or wool, must be provided by the student.

### The University Library

The Library dates from the establishment of the University, for the Monongalia Academy possessed a small number of books which became the nucleus of a library for the newly formed institution.

The purpose of the Library is to provide the books and related materials necessary for the purposes of successful instruction and research. Pursuant to this purpose the Library is striving to build strong, well-balanced collections in all subject fields included in the curricula of the University. Although primarily planned to supply the study and research needs of the staff and students, the Library collections are available to all residents of the state for reference, and many of its holdings may be borrowed through its Extension Department.

There are approximately 188,000 catalogued volumes in the book collection. About one thousand periodicals and newspapers are received currently, many of them being gifts. There is a special collection of books, manuscripts, and newspapers relating to West Virginia. It is estimated that there are more than 500,000 pieces in the collection of private manuscripts, about 3,000,000 items in the collection of court records, and several thousand volumes of newspapers, periodicals, and books.

Audio-visual aids are recognized as important implements of instruction. The Library has about 350 educational motion picture films, 200 film strips, a small collection of slides, and a few recordings.

Except during vacations and holidays, the Library is open from 7:55 a. m. to 10:00 p. m., Monday through Friday; from 7:55 a. m. to 5:00 p. m. on Saturday; and from 2:00 p. m. to 5:00 p. m. on Sunday. During vacations the hours are from 8:30 a. m. to 5:00 p. m.

### University Extension

The University maintains an Extension Division through which instruction is given off the Campus. The work of this division is under the general supervision of the Director of University Extension. The work given in extension courses corresponds in every particular to that given in the same courses on the Campus. Students taking extension courses for credit must satisfy fully all requirements for admission to the University and, before registering, should file with the Registrar of the University complete official transcripts of their entrance credits.

The maximum undergraduate credit that may be counted towards any degree for extension work conducted by the University is 48 semester hours. The maximum undergraduate credit that may be counted towards a degree for extension work taken in other institutions is 30 semester hours. No more than 15 hours of work taken in graduate extension courses may be counted towards any graduate degree, and of these only 8 semester hours may be in one field.

No University extension courses may be offered for credit without the approval of the Director of University Extension. Library and laboratory facilities for each course must be approved by the Director and, in the case of courses for graduate credit, by the Graduate Council. Reference books for the use of extension students may be borrowed from the University Library upon the order of the Director of University Extension, subject to the approval of the Library Committee. Postal charges must be paid by the individual or groups for whom the books are borrowed.

A fee of $8.00 per semester hour is charged for each extension course offered for undergraduate credit. A fee of $10.00 per semester hour is charged for each extension course offered for graduate credit.

For further information, write to the Director of University Extension or to the Registrar.

### The University Book Store

The University Book Store, located in the basement of the Law Building, is maintained for the convenience of the students and staff. It is open during customary business hours and keeps on hand constantly textbooks, stationery, drafting-room instruments and supplies, etc., which are available to the staff and students at a discount price. The Book Store also buys and sells used textbooks.

### Musical Organizations

The University and Community Orchestra is open to all students who are proficient in the use of orchestral instruments. Rehearsals are held weekly. Students participating receive 1 hour of credit each semester.

The University Women's Glee Club is open to all University girls who can sing a part. Rehearsals are held weekly. Students participating receive one hour of credit per semester.

The University Men's Glee Club is open to all University men who can sing a part. Rehearsals are held weekly. Students participating receive one hour of credit per semester.

The University and Community Mixed Chorus is open to all students who can sing a part. Rehearsals are held weekly. Students participating receive one hour of credit per semester.

The University Band is open to all University men who can qualify (see page 36). Concerts are given locally in addition to out-of-town appearances.

### University Broadcasting

Broadcasting of radio programs to the people of West Virginia was established at the University in May, 1938, when Station WMMN, Fairmont, began a series of non-commercial programs originating on the Campus. Since 1940, when Station WAJR was established in Morgantown, University programs have also been broadcast locally. During the school year 1944-45, regular weekly programs originating on the Campus are broadcast over WMMN. Numerous other programs are broadcast regularly over WAJR. All are of an educational, informative, or entertaining nature.

The University is prepared to open its doors to all West Virginia stations that wish to broadcast special Campus events.

## RECORDING

In 1941 the University received from Mr. Walker N. McCune, Pittsburgh engineer, a recorder valued at $5,000 and complete with a 16-inch and a 12-inch turntable, cutting mechanisms, playback arms, speaker, and control panel. Operating speeds are 78 and 33⅓ R.P.M. Six services possible with

the instrument are: instantaneous recording from "live" shows produced on the Campus; recording from live shows received by radio; reproduction of transcriptions by "dubbing"; public-address amplification; auditioning of rehearsals; and playback of recordings.

With this instrument, located in the University studio, it is possible to transcribe records for any department wishing to avail itself of the service. It is particularly suitable for voice testing. It is possible also to make recordings from remote locations on the University Campus.

## LIVING ACCOMMODATIONS

The University maintains three large dormitories, one for men and two for women. For information as to accommodations and rates, address the office of the Business Director of Residence Halls. Cost of room and board in the dormitories ranges from $345 to $410 per year. The University reserves the right to change these rates when necessity requires.

The following rules are in effect in normal times:

No student will be permitted to live in other quarters until after the Men's Hall and the Dormitories for Women are fully occupied.

In the assignment of rooms in these buildings all freshmen shall be required to take rooms therein before members of any other classes shall be assigned rooms therein, no freshman being allowed to live outside the dormitories if there is room in them. In enforcing the above rules the following exceptions shall be made:

(1) When the parents or legal guardians of the students reside in Morgantown or within commuting distance of the University, these rules shall not apply.

(2) When the home of the student is within such distance that it is entirely practicable for him to live in his home and reach the University by car or otherwise for all his classes, these rules shall not apply.

(3) When students above the rank of freshman reside in approved sorority or fraternity houses under the supervision of the Director of Student Affairs and the Dean of Women, these rules shall not apply.

(4) When conditions of employment (such as firemen in various buildings and homes, employment on dairy and experimental farms, etc.) require residence on the premises, these rules shall not apply.

The University reserves the right to assign rooms in Men's Hall to students other than freshmen after August 15 of each year.

When the space is needed for underclass women, no senior sorority women will be permitted to live in Women's Hall if there is room for her in her sorority house.

More detailed information may be found in the Dormitory Bulletin, a copy of which will be furnished by the office of the Business Director of Residence Halls.

Board and lodging for woman graduate students is available in private dwellings in Morgantown at about the same rates as obtain in the dormitories. Board and lodging for men is available in private dwellings. For further in-

formation concerning houses on the approved list men should address the office of H. E. Stone, West Virginia University, Morgantown. Women should communicate with the office of the Dean of Women, Morgantown.

## ADMISSION TO THE UNDERGRADUATE COLLEGES AND SCHOOLS

### Methods of Admission

Students are admitted to the University either by examination or on certificates from accredited secondary schools.[1] In the latter case the certificates must set forth the work of the student in detail. Diplomas or certificates of a general nature are not sufficient.

Candidates for admission to the University must be at least 16 years of age. They must present certificates of good moral character, and if from other colleges or universities, they must present letters of honorable dismissal.

Candidates for admission who do not present entrance certificates, or who come from other institutions of learning without letters of honorable dismissal may, at the discretion of the Committee on Entrance, be allowed to register provisionally. In every such case the Registrar will make immediate inquiry of the institution from which the applicant comes, and if satisfactory certificates of credit and good standing cannot be obtained, the registration will be cancelled and the fees paid by the applicant will be returned. A provisional registration will not ordinarily be continued for a period longer than one week.

### Entrance Unit Defined

The requirementss for admission to the various colleges of the University are stated in terms of units.

A unit in any subject represents the amount of work that may be done in a standard high school in a year of 36 weeks, with five recitation periods per week, of no less than 40 minutes each. In courses in which laboratory work is required, from two to three periods of laboratory work are considered the equivalent of one period of recitation according to the amount of outside preparation required in connection with such work.

Graduates of accredited schools receive credit for the work certified, with the understanding, however, that no student may enter any college or school of the University until he has credit for 15 units, *i. e.*, the work of the standard four-year high-school course.

### Certification of Entrance Unit

Entrance units should be certified on the blank form prescribed by the University, so that credit values may be readily computed. These certificates should be sent to the Registrar at least three weeks before the applicant presents himself for matriculation. Failure to do this may result in vexatious delay in registration and may render the student liable for the payment of the $2 late-registration fee. After the certificate has been considered by the Committee on Entrance and the credits recorded, it becomes the property of the University and is permanently filed in the Registrar's office.

[1]In accrediting West Virginia secondary schools the University follows the classification made by the State Supervisor of High Schools.

### Prescribed and Elective Units

A. Fifteen units of high-school work are required for entrance to the University.

B. The following groups are required:
(1) Four units in English[2]
(2) Three units in a second subject
(3) Two units in each of two other subjects.

C. The work in "A" must include the following:

For admission to all colleges and schools, 1 unit in Algebra.

For admission to the College of Agriculture, in the case of students who elect agriculture or forestry as their major field of study—1 unit in plane geometry.

For admission to the College of Arts and Sciences, in the case of students who intend to elect chemistry, geology, mathematics, physics, or pre-medical studies as their major field of study—1 unit in plane geometry.

For admission to the College of Engineering—1½ units in algebra, 1 unit in plane geometry, and ½ unit in solid geometry.[3]

For admission to the College of Pharmacy—1 unit in history and 1 unit in science.

D. Work in the following subjects not to exceed the number of units placed after each subject will be accepted:

| *Subject* | *Units* |
|---|---|
| English | 4 |
| Foreign languages[4] | |
| Latin | 4 |
| Greek | 3 |
| French | 3 |
| German | 3 |
| Spanish | 3 |
| Italian | 3 |
| Education | 2 |
| Mathematics | |
| Algebra | 2 |
| Plane geometry | 1 |
| Solid geometry | ½ |
| Trigonometry | ½ |
| History and Economics[5] | |
| History | 3 |
| Civics | 1 |
| Economics | 1 |
| Sociology | 1 |
| Drawing | |
| Free-hand drawing | 1 |
| Mechanical drawing | 1 |
| Music (applied) | 2 |
| Science[6] | |
| Physics | 1 |
| Chemistry | 1 |
| Biology[7] | 1 |
| Botany[7] | 1 |
| Zoology[7] | 1 |
| Geology | 1 |
| General science | 1 |
| Physical geography | 1 |
| Physiology | ½ |

[2]A student may enter with 3 units of English, but in that case he must elect 6 hours of college English in addition to the minimum number of hours in that subject required for his degree. For this additional work he will receive college credit.

In the College of Engineering and the School of Mines the 6 hours of college English requirements will be waived if the student presents for entrance 2 units in a foreign language.

[3]Students entering the College of Engineering may be admitted conditionally with only 1 unit of algebra or without solid geometry, but they will be irregular in their schedule. All conditions must be removed during the first year.

[4]1 unit of Latin will be accepted. No less than 2 units of either French, German, Greek, Italian, or Spanish will be accepted unless sufficient additional work in that language is taken in college to complete a minimum of 2 units.

[5]A group of 3 units may be formed by combining 2 units of history with 1 unit of civics, economics, or sociology, or with ½ unit each of any two of these subjects.

[6]A group of 2 or 3 units in science may be made by combining 1 unit each of any two or three of the following: physics, chemistry, botany, biology, zoology, geology.

[7]If a student presents either botany or zoology for entrance he may have credit for no more than ½ unit of biology; if he presents both botany and zoology, no credit in biology will be allowed.

| *Subject* | *Units* |
|---|---|
| Commercial geography | ½ |
| Commercial law | ½ |
| Vocational subjects (not to exceed 4 units) | |
| Agriculture | 4 |
| Household arts | 3 |
| Manual training | 3 |
| Bookkeeping or bookkeeping and commercial arithmetic | 2 |
| Commercial arithmetic (alone) | ½ |
| Shorthand | 1 |
| Typing | 1 |
| Hygiene and sanitation | 1 |
| Physical education | 1 |

**Special Requirements for Admission**

*The College of Law:*

The following students will be admitted:

1. Graduates of approved colleges.

2. Students who have completed at least three years of work of collegiate grade at an institution of approved standing. If such work is taken at West Virginia University, ninety-six hours of credit must be presented. Students from any institution other than West Virginia University must have credit for three-fourths of the number of hours required for graduation by such institution, but in no case less than ninety hours. Except when the applicant has a degree from an approved college, only those credits may be counted for admission to the College of Law for which West Virginia University would give credit toward a degree of Bachelor of Arts, Bachelor of Science, or Bachelor of Science in Engineering. Work taken at West Virginia University must carry a number of honor points equal to the number of hours of credit.

If a student needs no more than four hours or no more than four honor points, or no more than four hours and four honor points, in order to meet these requirements, the Scholarship Committee may, in a meritorious case, admit such student. But until these requirements have been met, law-school credit is withheld and the student is not eligible to take second-year work. A student may not make up such hours or honor points while he is carrying work in a regular session of the College of Law.

Every applicant for admission must present to the secretary of the school, prior to registration, a complete transcript of his record in each institution which he has attended after the completion of his secondary education.

Except in the case of students who have maintained a high scholastic average, each applicant is required to appear before the Committee on Admissions for advice as to the likelihood of his success in the study of law. In such interview the Committee may, as a basis for this advice, make use not only of college grades, but also of intelligence tests and legal aptitude tests.

No applicant will be admitted who previously shall have attended another law school and who shall be ineligible to return to that school in good standing.

*The College of Education:*

The requirements for admission to the College of Education shall be the completion of 58 semester hours of approved college work, with an average of at least 1 honor point per credit hour. Candidates for the bachelor's degree

in Education register for their first two years of work in the College of Arts and Sciences. Freshmen and sophomores who expect to enter the College of Education will indicate their intention when they register. Their studies will be directed by Professor Elizabeth Stalnaker, adviser for pre-Education students. Such students should so order their courses of study as to satisfy requirements for junior standing and should be fulfilling requirements for the certification of teachers.

*The School of Journalism:*

A candidate seeking admission to the School of Journalism with the view of obtaining a degree must have satisfied the requirements for matriculation in one of the University undergraduate colleges and must have earned at least 58 semester hours of college credit. A student deficient in physical education and military science will be required to take these subjects as soon as possible. During his freshman and sophomore years he should have completed satisfactorily all or most courses specified for pre-journalism majors. A pre-journalism student not maintaing at least a C average during his first two years in all college subjects is strongly advised not to enroll in the professional school.

*The School of Medicine:*

The entrance requirements of the School of Medicine are subject to modification without notice, in response to the changing needs of the national emergency and in harmony with sound educational practice agreed upon by the medical schools of our country. The normal entrance requirements are stated below.

In addition to the high-school requirements the applicant for admission to the School of Medicine must have credit for at least three years of work in a college of recognized standing. This must include 90 hours of credit exclusive of military science and physical education.

This 90 hours of credit must include the following subjects and hours: English composition, 6 hours; physics, 8 hours; biological sciences, 12 hours (mainly zoology and comparative anatomy); chemistry, 20 hours (including 6 hours organic); psychology, 3 hours; a modern foreign language, 12 hours (German or French preferred); Latin, 6 hours recommended.

Scholarship: Since only a limited number of students can be admitted, the selection is made on a basis of scholarship. All applicants must take the aptitude test approved by the Association of American Medical Colleges, the rating in which is considered in making selections. This test is given at regular intervals in all colleges giving pre-medical work.

Further details concerning entrance requirements to the School of Medicine may be obtained by writing to the Dean of the School of Medicine or the Registrar of the University. A full statement concerning suggested pre-medical courses is to be found in Part III of this Catalogue (page 120).

*The School of Music:*

Students who meet University entrance requirements are admitted to the School of Music either by examination or on certificate from an accredited secondary school. In case of the latter, the certificate must set forth the work

of the student in detail. Students may enter the applied-music courses in the School of Music any time during the semester without credit. An examination will be given them to determine what work they are prepared to do. It is to their advantage, however, to enter at the beginning of the semster. Students majoring in Music will be expected to have acquired previously a background in the fundamentals of music and a fair ability in music reading. All students will be examined at least twice a year, in January and May, to determine the progress made.

In the School of Music special provision may be made to permit talented individuals to take work in Applied Music without credit.

*Conditional Admission:*

Student must make up all deficiencies before they can be classified as sophomores.

**Special Students**

Persons who do not desire to become candidates for a degree may, by permission of the Committee on Entrance and of the faculty and dean of the college which they desire to enter, be admitted as special students, subject to the following provisions:

1. Special students must as a rule be 21 years of age.

2. Special students must satisfy at least 9 units of the requirements for admission, including 2 units of English.

3. Every application for admission as a special student must be presented in writing to the Committee on Entrance and must set forth fully the applicant's reason, together with a detailed statement of the studies he desires to pursue.

4. Special students are subject in all respects to the usual rules relating to registration and scholarship. They may be assigned to classes for which they apply, it being understood, however, that admission to any class rests entirely with the instructor in charge, and further, that admission to any class when so granted does not necessarily imply credit for prerequisites.

5. In the College of Law, students with less than the academic credit required of candidates for the degree of Bachelor of Laws will be admitted as special students only if:

(a) they have credit for no less than two years of work of collegiate grade in an institution of approved standing;

(b) they are at least twenty-three years of age;

(c) there is good reason, acceptable to the Scholarship Committee, for thinking that their experience and training have specially equipped them to engage successfully in the study of law, despite the lack of the required college credit; and

(d) the number of such special students admitted each year shall not exceed ten percent of the average number of students admitted by the College of Law as beginning regular law students during the two preceding years.

6. In the School of Mines, special provisions are made for those taking strictly vocational courses.

### Admission to the Graduate School

Applicants holding Bachelors' degrees from West Virginia University or from other accredited institutions may be admitted to the Graduate School by formal application to the Chairman of the Graduate Council. An official transcript of previous academic record must be sent directly to the Registrar of the University by the registrar of the other institution. Additional undergraduate work may be required by the University departments in which the candidate proposes to specialize.

Applications for admission should be made either in person or by letter approximately one month before the opening of the semester or term for which registration is desired. Blank forms may be obtained from the Chairman of the Graduate Council. The application must be in the hands of the Council at the time the student presents himself for registration for graduate courses. If the student contemplates entering upon candidacy for an advanced degree he should announce in his application his choice of a major field of study. Then he will be referred to the head of the department in which he desires to do his major study, who will assign him to an adviser.

Eligible students who wish to further their education without reference to a higher degree will be admitted to the Graduate School provided they elect graduate courses for which they can satisfy the prerequisites.

### Advanced Standing

Application for advanced standing on account of work of college grade done before entrance to the University should be made to the Committee on Entrance not later than two weeks after the applicant's matriculation.

If no certificates are offered or if those offered are considered by the Committee on Entrance to be irregular or insufficient, the Committee will arrange for an examination of the applicant. Upon payment of the examination fee, the Registrar will issue an examination card to the dean of the proper college, who will sign the card and forward it to the department concerned. After the examination the head of the department will report to the office of the Registrar the names, numbers, and credit values of the courses, if any, for which the applicant is entitled to credit.

*The College of Law:*

Applicants for admission to advanced standing must satisfy the ordinary requirements for admission to the first-year class, must have successfully pursued the study of law in a school which is a member of the Association of American Law Schools, and must have received credit for courses equivalent to those required of students in the College of Law. The extent of credit allowed for work done elsewhere is determined by the Scholarship Committee.

Any applicant for advanced standing may also, in the discretion of the faculty, be required to pass examinations in any or all courses presented for credit.

*The School of Music:*

Advanced standing in applied music is given only by examination. Persons desiring such standing should enroll at the beginning of the semester, and after they have become thoroughly familiar with the requirements for each semester's work, they may take a special examination in which they will prove their ability to meet the requirements as outlined.

*The College of Pharmacy*

No student shall be permitted to complete the course in pharmacy in less than three collegiate years in a college of pharmacy, regardless of the amount of credit offered for advanced standing. This is in accordance with the by-laws of the American Association of Colleges of Pharmacy.

*Credit in Correspondence Work:*

Credit up to a maximum of 30 semester hours for work completed by correspondence in non-laboratory courses will be accepted by the University when such work is given by accredited colleges or universities that accept this work for credit toward their own degrees and whose residence work is accepted by West Virginia University. In compliance with an order of the State Board of Education, however, credits obtained in correspondence courses will not be considered in certifying students for teachers' certificates.

## PLANS FOR RETURNING VETERANS OF WORLD WAR II

The University recognizes that men and women from the Armed Forces who enter college require individual and personalized guidance in order to facilitate their entrance into the University and to aid in their adjustment to University life. A special University Veterans Counseling Committee, composed of representatives from several colleges and schools, is prepared to assist veterans in obtaining expert advice for the planning of a program which is best suited to the needs of the individual. In addition, a Veterans Coordinator is available for consultation and help in the solution of personal problems which may arise in the transition to civilian student life.

Information regarding the educational opportunities made possible at the University through the provisions of the Service Men's Readjustment Act of 1944 (G. I. Bill of Rights) and the Vocational Rehabilitation Program of the Veterans Administration (Public Law 16) may be obtained from the Veterans Coordinator, A. R. Collett, by personal conference or by mail.

Veterans of World War II may be admitted to the University by the Committee on Entrance by any of the following methods:

1. Graduation from an accredited preparatory school.
2. Presentation of 15 units of high-school work without graduation.
3. Advanced standing from other accredited colleges or universities.
4. Evidence of sufficient maturity and ability to do college work furnished by the use of United States Armed Forces Institute tests and norms for high school; American Council on Education tests; or by tests and norms developed locally in any college, school, or department. Training of any kind received in the service will be considered and, if possible, evaluated for entrance or college credit.
5. Veterans who present at least 9 units of entrance credit may be admitted as special students.
6. In some instances, with the approval of the college, school, or division concerned, special short courses may be arranged for veterans who do not meet any of the above-mentioned requirements.

## REGISTRATION

Persons who are not registered as students in the University and who are not members of its administrative or teaching staffs shall not be admitted to regular attendance in University classes.

*Time and Place of Registration:*

All students are expected to register on the days set apart for registration at the beginning of each semester or term of the University. Students in the College of Agriculture, Forestry, and Home Economics, the College of Arts and Sciences, the College of Education, the College of Pharmacy, the Graduate School, the School of Journalism, the School of Music, and the School of Physical Education and Athletics register in the Field House on Beechurst Avenue. Students in the College of Engineering register in Mechanical Hall; students in the School of Mines register in the Mineral Industries building; students in the College of Law register in the College of Law building; and students in the School of Medicine register in the School of Medicine building.

Registration for the first semester, 1945-46, will take place on Monday and Tuesday, September 17 and 18, 1945.

Immediately after completion of their registration, all students are expected to pay their fees at the office of the University Comptroller in the Administration Building.

During registration week all male freshmen will report at the Field House for assignment of lockers, for appointment for physical and medical examinations, and for physical achievement tests.

Freshmen women will report during registration week at Elizabeth Moore Hall for similar examinations and tests.

All freshmen are required to take such intelligence and placement tests as are made part of the Freshman Week program.

*College Credit Defined:*

A college credit or semester-hour represents the amount of work done in one semester (18 weeks) in one recitation hour with two preparation hours a week. From two to three hours of laboratory work are considered equivalent to one hour of recitation, according to the amount of outside work assigned in connection with the laboratory hours.

*Numbering of Courses:*

Courses offered in the various colleges and schools of the University are numbered so as to indicate the rank (freshman, sophomore, junior, senior, or graduate) of the students for whom they are intended. See page 84.

*Adviser:*

The college in which a student is enrolled shall have jurisdiction over the course of study of that student. Each student upon entering the University is assigned to an adviser, whose duty it is to assist the student in his registration, to keep a record of his work, and to report his registration and standing to the Registrar as required. The adviser approves the student's program of studies, sees that all prescribed work is taken in proper sequence, approves the selection of elective courses, and assists the student generally in planning his course of study so that he may proceed systematically and without conflicts. Changes in registration must always have the approval of the adviser. The student will look to his adviser for guidance in all matters pertaining to his work.

*Maximum and Minimum Work:*

The maximum and minimum number of hours per semester as well as the maximum number of hours per year for which a student may register during the regular academic year of the University are as follows:

| | *Minimum Hours per Semester* | *Maximum Hours per Semester* | *Year* |
|---|---|---|---|
| Agriculture | 14 | 20 | ---- |
| Arts and Sciences | 14 | 18 | 34 |
| Education | ---- | 18 | 35 |
| Engineering and Mechanic Arts | 14 | 20 | ---- |
| Forestry | 14 | 20 | ---- |
| Home Economics | 14 | 18 | 34 |
| Journalism | 14 | 18 | 36 |
| Law | 13 | 16 | ---- |
| Medicine | 17 | 20 | ---- |
| Mines | 14 | 20 | ---- |
| Music | 14 | 20 | ---- |
| Pharmacy | 14 | 20 | ---- |
| Physical Education and Athletics | 14 | 20 | ---- |

The work of the Summer Session is equivalent in character to that of the regular year. Six semester hours' credit is a normal load for either term; but students may carry seven hours if one hour is military science or physical education service program. Students who have earned 2.0 honor points (Arts and Sciences standard) for each hour of registration during the last semester or Summer term in residence at the University may petition the respective Scholarship Committees to take not in excess of eight hours if by carrying eight hours the student can satisfy requirements for graduation or for certification. All petitions of graduate students will be acted upon by the Graduate Council. However, only six hours of credit will be allowed unless the student maintains a general standing of 2.0 honor points for each hour of registration.

A student desiring to do irregular work, more or less than the prescribed number of hours in any college, must obtain permission from the Committee on Scholarship in his college. This permission is not valid until it has been reported to the Registrar for record.

*Late Registration:*

No student will be permitted to register in the University after the eighteenth day of a semester or the ninth day of either term of the Summer Session, without the special permission of the dean of the college or director of the school which he proposes to enter. No student registering late will be permitted to enroll for more hours of work than the number of weeks in actual attendance without the permission of the Committee on Scholarship of the college or school concerned.

*Substitution for Required Courses:*

A student who desires to substitute another course for any course prescribed in his curriculum or required for the degree toward which he is working, must obtain permission for such substitution from the Committee on Scholarship in his college or school, but there can be no substitution from group to group.

*Visitors:*

Students who are registered in the University may be permitted to attend classes as visitors, provided they shall have obtained the written permission of their advisers and of the instructors in the classes they desire to visit. Members of the administrative or teaching staffs, or other regular employees of the University, may be permitted to attend classes as visitors, provided they shall have obtained the written permission of the heads of their departments and of the instructors in the classes which they desire to visit.

No record is kept of the work and attendance of persons admitted to classes as visitors and no credit is given for their work in such classes.

Persons eligible to attend classes in the University as visitors may obtain the proper permission blanks from the Registrar.

*Withdrawal from the University:*

A student who desires to withdraw from the University must obtain a withdrawal card from the office of the Registrar. Withdrawal procedure will be explained to him when he obtains this card.

Students who withdraw from the University without permission will receive at the end of the semester a grade of "FIW" (failure because of irregular withdrawal) in each of the subjects for which they are registered and will be indefinitely suspended from the University.

Students who desire to drop part of their work may withdraw from classes in which they are enrolled with a grade of W at any time prior to the end of the second week following the date set for mid-semester reports. Withdrawal permits must be approved by the adviser and filed with the Registrar. If such withdrawal reduces the student's hours below the required minimum, the permit must be approved by the Scholarship Committee. Withdrawals after the above date will be permitted only in exceptional cases and must be approved by the Scholarship Committee of the college in which the student is registered.

*Re-entry after Withdrawal:*

Students required to withdraw from one college of the University because of failure in their work and permitted to transfer to another college of the University may not again register in the college in which they were originally registered without the consent of the Scholarship Committee of that college.

*Return of Books to the Library:*

Students must present a signed statement from the Librarian that they have returned all books and paid all the library fines incurred, before they withdraw. No student will be allowed to graduate before paying all fines and returning all Library books.

## UNIVERSITY FEES AND EXPENSES

(Subject to change without notice)

### Fees

All fees are due and payable at the Comptroller's office on the day of registration.[1] Students registering pay the following fees:

[1]Students who have not paid their fees before the close of office hours of the second Saturday following the opening of a semester or a summer term, shall be dropped from the rolls of the University, and the Registrar shall notify their instructors that their class cards are to be withdrawn.

## *Semester Fees in the Colleges and Schools*

## (except in the School of Medicine)

| COLLEGE OR SCHOOL | REGULAR YEAR | | | | SUMMER SESSION | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | Full Time[2] | | Part Time[4] | | Full Time[2] | | Part Time[4] | | |
| | Resident[3] | Non-resident[3] | Resident[3] | Non-resident[3] | Resident[3] | Non-resident[3] | Resident[3] | Non-resident[3] | |
| Agr. For., H. Ec.<br>Arts & Sciences<br>Education<br>Engineering<br>Journalism<br>Mines<br>Phy. Ed. and Athletics | $ 40.00* | $ 115.00* Fees in this column include out-of-state tuition. | $ 3.00 per credit hour | $ 8.00 per credit hour | $ 25 or $ 30† | $ 35 or $ 40† | $ 5.00 per credit hour | $ 7.00 per credit hour | *Includes Contingent fee ($30); Student Activity fee ($7): Health Service fee ($2.50); and Hospital fee (50c.)<br>†Either term, lower figure; both terms, higher figure. |
| Music | $ 75.00 | $ 150.00 | ..... | ..... | ..... | ..... | ..... | ..... | *See above |
| Pharmacy<br>(See "Special Fees in Pharmacy") | $ 65.00* | $ 140.00* | $ 4.00 per credit | $ 12.50 hour | | | | | *See above |
| Law | $ 65.00* | $ 190.00* | $ 4.00 per credit | $ 12.50 hour | No instruction in summer | | | | *See above |
| Medical Technician (Jr. and Sr. Years) | $ 65.00* | $ 140.00* | | | No instruction in summer | | | | *See above |
| Medicine (per term) | $ 85.00* | $ 135.00* | $ 8.00 per credit | $ 12.50 hour | | | | | *See above |

[2]A full-time student is one who is registered for 10 or more semester-hours of work during each semester of the regular academic year, or 4 or more semester-hours of work during each term of the summer session. A full-time student during the regular academic year receives a student activity book which entitles him to admission to all out-door athletic events and, by the payment of an additional nominal amount at each event, entitles him to admission to all in-door athletic events held in the Field House. A full-time student during the regular academic year, or during the summer session is entitled to free medical consultation and advice from the University physician. A moderate charge is made for room-calls, X-ray, special laboratory tests, drugs furnished by the University Pharmacy, minor operations, treatment of fractures and dislocations, and intravenous treatment.

[3]No person shall be considered eligible to register in the University as a resident student who has not been domiciled in the State of West Virginia for at least 12 consecutive months next preceding his registration. No non-resident student may establish domicil in this State, entitling him to reductions or exemptions of tuition, merely by his attendance at the University. A minor student whose parents have become domiciled in West Virginia after the student's original registration in the University, will be deemed to have the domicil of his parents and be entitled to pay resident fees thereafter. Moreover, any student who has originally paid non-resident fees may become entitled to pay resident fees, if after an interim of non-attendance or otherwise he has established a valid legal domicil in this State at least twelve months prior to his re-registration in the University. In any event, the appointment of a guardian for a minor student temporarily resident in West Virginia, other than the designation of a natural guardian, shall not in and of itself operate to establish a West Virginia domicil for such student.

[4]A part-time student is one who is registered for fewer than 10 semester-hours per semester during the regular academic year; or for fewer than 4 semester-hours per term during the Summer Session.

### Special Fees

| | |
|---|---|
| Late registration fee[5] | $ 2.00 |
| Graduation fee[6] | 10.00 |
| Professional Engineering degree (including $10.00 graduation fee) | 25.00 |
| Student's record fee[7] | 1.00 |
| Junior certificate | 1.00 |
| Change in registration fee (after 8th day) | 1.00 |
| Examination fee for advanced standing | 3.00 |
| Fee for examination for entrance credit, per unit | 1.00 |
| Fee for reinstatement of students dropped from the rolls | 3.00 |
| Examination fee* for candidates for graduate degrees | 1.00 |
| Student locker fee (men) | 2.50 |
| Student locker fee (women) | 2.00 |

### Special Fees in Medicine and Pharmacy

Students in colleges and schools other than the College of Pharmacy and the School of Medicine who register for courses in the College of Pharmacy or the School Medicine shall be required to pay a fee of $4.00 per credit hour for such courses in addition to the fees charged in the colleges or schools in which they are registered.

Regularly enrolled students in the College of Pharmacy are given the privilege of enrolling without additional fees in required Pharmacy courses offered in the School of Medicine.

Regularly enrolled pre-medical students in the College of Arts and Sciences are given the privilege of registering for the following courses in the College of Pharmacy without additional charge: Pharmacy 2, Pharmacy 3, Pharmacy 9, Pharmacy 106, and Pharmacy 107.

### School of Music Fees

1. STUDENTS REGISTERED FOR DEGREES IN THE SCHOOL OF MUSIC:

   In addition to the fees required of all full-time students (see table on page 50), resident and non-resident students registered for degrees in the School of Music pay the following fees each semester: Voice, piano, violin, pipe organ, theory and composition, and public-school music, $35.

2. SPECIAL STUDENTS REGISTERED IN THE SCHOOL OF MUSIC:

   (a) Theory Courses—Special students registered in the School of Music for theory courses in music shall pay $5 per credit hour for these courses.

   (b) Applied Courses—Special students registered in the School of Music for courses in applied music shall pay tuition fees in each semester as follows: for courses in voice, piano, violin, pipe organ, or band and orchestra instruments—one lesson per week, $35, two lessons, $55. For instrument classes the fee is $5 per semester. In ensemble courses the fee in accompanying is $5 per semester; in chamber music, $5 per semester.

[5]Charged when students register after registration dates announced in the Catalogue, page 5.

[6]The graduation fee is payable by all students at the beginning of the semester or term in which they expect to receive their degrees or diplomas.

[7]One transcript of a student's record is furnished by the Registrar without charge. This fee is charged for furnishing an additional transcript.

*For graduate students not otherwise enrolled at time of final examination.

(c) Special Work in another College or School—Special students registered in the School of Music who take special work in another college or school of the University shall pay music fees plus the regular rate per credit-hour for the work they are taking in another college or school.

3. STUDENTS REGISTERED IN OTHER SCHOOLS AND COLLEGES:

(a) Theory Courses—Students registered in other schools and colleges of the University may enroll for theory courses in the School of Music without paying additional fees.

(b) Applied Music—Students in other schools and colleges of the University who enroll for one or more courses in applied music shall pay the regular fees required in the school or college in which they are registered plus music fees as follows: for courses in voice, piano, violin, pipe organ, or band and orchestra instruments, one lesson per week, $20; two lessons, $35.

4. PIANO, PIPE ORGAN, AND ORCHESTRAL INSTRUMENTS FOR PRACTICE:

(a) Piano for Practice—one hour a day, $6 per semester; two hours, $10; three hours, $14; four hours, $18.

(b) Pipe-organ Practice—one hour a day, $10 per semester.

(c) Orchestral Instruments—rental fee, $2.50 per semester.

### Deposits

The deposits required are as follows: breakage deposit in chemistry, $5 to $10; breakage deposit in pharmacy, $10; breakage deposit in medicine, $10; military science deposit, $10.

### Refunding of Fees

A student who withdraws regularly[8] from the University may arrange for a refund of fees by submitting to the Comptroller his original fee receipt bearing an endorsement by the Registrar stating that his withdrawal has been regular together with the unused portion of his Student Activity book. Fees will be returned in accordance with the following schedule:

| | *Amount of Refund* |
|---|---|
| During the first and second weeks[9] | All fees less $3.00 |
| During the third and fourth weeks | 80% of fees |
| During the fifth and sixth weeks | 60% of fees |
| During the seventh and eighth weeks | 40% of fees |
| Beginning with ninth week | No refunds allowed |

### Cost of a Year's Work

A student's textbooks will cost from $20 to $40 a year, and his registration fees $80 to $254 if he is a resident; or $230 to $404 if a non-resident. Students in engineering will use drawing instruments costing from $15 to $25. The laboratory breakage deposit required ranges from $5 to $10, a part of which is usually returned at the end of the year. In military science a $10 deposit is required to cover military equipment in the custody of the student, practically all of which is returned to the student when he accounts for his equipment. Board and room may be obtained at from $324 to $400 a year. A student's washing will cost from $18 to $24 a year. Traveling expenses, cloth-

[8]To withdraw regularly a student must apply to the Registrar for permission. The withdrawal permit must be approved by the student's adviser and the Dean of the College and filed in the Registrar's office.

[9]Registration fee $2.50 and hospitalization fee 50 cents.

ing, and other miscellaneous items will depend largely upon the tastes and habits of the individual student. In general, however, it may be said that the legitimate cost of a nine months' term of residence at the University ranges from $500 to $800 a year.

## REQUIREMENTS FOR DEGREES

Candidates for degrees are eligible for graduation upon the completion of the requirements, in the college or school in which they are registered, which were in effect at the time of their first registration in that college or school, provided they apply for graduation within a period of seven years from the time of their first registration. Students who fail to complete the requirements for graduation within seven years from their first registration in the college or school in which they are candidates for degrees, shall satisfy the requirements in effect at the time they apply for graduation.

All University degrees are conferred by the Board of Governors upon recommendation of the faculties of the various schools and colleges. Degrees are granted at the close of the semester or summer session in which the students complete their work.

Candidates for degrees to be conferred at the close of the second semester must be present in person to receive their degrees unless excused by the deans of their colleges or directors of their schools.

### Scholastic Standing and Honor Points

*Marking System:*

A—excellent (given only to students of superior ability and attainment)
B—good (given to those students who are well above the average but who are not in the highest group)
C—fair (average students)
D—poor but passing[2]
E—condition
F—failure
I—incomplete
FIW—failure because of irregular withdrawal
W—all withdrawals prior to the end of the second week following the date set for mid-semester reports.
WP—withdrew passing subsequent to the end of the second week following the date set for mid-semester reports.
WF—withdrew failing subsequent to the end of the second week following the date set for mid-semester reports.

*Honor Points:*

The quality of a student's work is indicated by honor points.

A tabulation, showing the number of honor points, if any, and the grades for which they are given in the various divisions of the University, follows:

| *Grade* | A | B+ | B | C+ | C | D | F |
|---|---|---|---|---|---|---|---|
| All colleges, schools and divisions except the College of Law[1] | 3 | — | 2 | — | 1 | — | — |
| College of Law | 5 | 4 | 3 | 2 | 1 | — | — |

[1]See footnote 1 on page 54.

[2]Students are permitted to re-register in any course for which a grade of D has been received. In such cases the second grade shall supersede the first, provided it is not lower than D.

### Baccalaureate Degrees

*Credits and Honor Points Required:*

Less than 6 hours in an ancient or modern language will not be counted toward any University degree, diploma, or certificate unless work in the same language has been offered for entrance.

Six hours of English composition and rhetoric (English 1 and 2) are required of all candidates for the bachelor's degree in all colleges and schools of the University.

Eight hours of military science and tactics are required of all freshmen and sophomore men not specifically exempt.[3]

Two hours of physical education for men, to be taken during the first year in residence, and four hours of physical education for women, to be taken during the first and second years in residence, are required for graduation, except in the case of students entering with advanced standing amounting to 58 semester hours or more.

Each baccalaureate degree is conditioned upon the completion of a specified number of semester hours of credit. For a tabular statement of the number of credit hours required for each degree, see the last column on page 55, under the caption "Classification of Students."

All divisions of the University require minimum standards of scholastic quality. These are expressed in terms of **honor points.** Honor points are computed only on grades earned at West Virginia University (including Potomac State School of West Virginia University) and all courses taken in this institution which are offered towards credit requirements for the degree for which the student is a candidate shall be included in the computation of honor points. The student must maintain an average of one honor point per credit hour in order to be eligible for graduation, except in the College of Law, which requires an average grade of C. The College of Education, in addition to a general average of 1 honor point per credit hour in all subjects, requires an average of 1 honor point per credit hour in Education and in each teaching field.[2]

In order to be eligible for recommendation for any West Virginia high-school teaching certificate, every student in West Virginia University who desires any such certificate must have a general honor-point average of 1.0 and also an honor-point average of 1.0 in each teaching field and in Education.

In all units except the College of Engineering and Mechanics Arts, the Graduate School, the School of Journalism, the College of Law, and the School of Medicine, students may decrease the total number of credit hours required for graduation by doing work of superior quality. For each 8 honor points in excess of 1 honor point per credit hour, the number of credit hours re-

[1]In the College of Law the sign + after the grades A, B, or C will be used to indicate the differences in standing between students receiving the same letter grade. In the Graduate School, no credits are acceptable toward an advanced degree with a rank lower than C.

[2]All applicants for certification are required to present an honor-point average of 1.2 in the first and second teaching fields and in Education.

[3]See page 35.

quired for graduation may be diminished by one. This does not, however, excuse students from courses required for the degree.

It is the student's responsibility to keep informed on his honor-point standing. This information may be obtained at any time from the dean or director of the college or division in which the student is registered.

*Requirements as to Residence:*

Students who come to the University from other colleges or universities are advised to make the transfer not later than the beginning of their third year and in no case will a student who matriculates in the University later than October 1 in any year be permitted to receive a degree at the next Commencement.

In special cases students who desire to leave the University at the close of their third year to enter another institution with the purpose of taking a combined course leading to two degrees or of preparing for graduate study may, upon application beforehand to the Committee on Scholarship of the college or school in which they are registered, be permitted to do the work of the fourth year, or a part thereof, at such other institution and to receive the bachelor's degree from the University upon the presentation of the proper credits.

Except in the College of Law, no student will be granted a bachelor's degree by this University who has not done either a total of 90 hours or the last 30 hours of his work in actual residence at the University.

No student may receive the degree of Bachelor of Laws without at least three semesters in residence at the College of Law and the successful completion of courses aggregating at least one-half of the total number of hours required for graduation.

*Classification of Students:*

The following table shows the number of semester-hours required for classification as second-year, third-year, and fourth-year students and for graduation, according to the curricula in the several colleges, schools, and divisions. First-year students must satisfy the requirements for admission as set forth on pages 40 to 44 inclusive.

| COLLEGE AND DEGREE | Hours Required to Classify As | | | |
|---|---|---|---|---|
| ARTS AND SCIENCES | Second-Year Student | Third-Year Student | Fourth-Year Student | Hours Required for Degree |
| Bachelor of Arts (A. B.) | | | | |
| Regular | 25 | 58 | 92 | 128 |
| Pre-Medical | 32 | 58 | 96 | 128 |
| Combined (Medicine)[1] | 32 | 58 | 96 | 132 |
| Combined (Law)[2] | 25 | 58 | 96 | 124 |
| Bachelor of Science (B. S.) | | | | |
| Business Administration | 32 | 58 | 99 | 132 |
| Chemistry | 34 | 58 | 103 | 136 |
| Combined (Medicine)[3] | 32 | 58 | 96 | 172 |
| Social Work | 25 | 58 | 92 | 128 |

[1]Fourth year in School of Medicine.
[2]Fourth year in College of Law.
[3]Third and fourth years in School of Medicine.

| COLLEGE AND DEGREE | Hours Required to Classify As Second-Year Student | Third-Year Student | Fourth-Year Student | Hours Required for Degree |
|---|---|---|---|---|
| AGRICULTURE, FORESTRY, AND HOME ECONOMICS | | | | |
| B. S. (Bachelor of Science) | 26 | 64 | 100 | 144 |
| B. S. in Agriculture (B. S. Agr.) | 26 | 64 | 100 | 144 |
| B. S. in Forestry (B. S. F.) | 30 | 70 | 110 | 150 |
| B. S. in Home Economics (B. S. H. E.) | 25 | 58 | 92 | 128 |
| EDUCATION[4] | | | | |
| B. S. in Education (B. S. Ed.) | ---- | 58 | 92 | 128 |
| ENGINEERING[5] | | | | |
| Bachelor of Science (B. S.) | 27 | 60 | 94 | 133 |
| B. S. in Chem. Eng'g. (B. S. Ch. E.) | 30 | 72 | 112 | 152 |
| B. S. in Civil Eng'g. (B. S. C. E.) | 30 | 72 | 112 | 152 |
| B. S. in Elec. Eng'g. (B. S. E. E.) | 30 | 72 | 112 | 152 |
| B. S. in Mech. Eng'g. (B. S. M. E.) | 30 | 72 | 112 | 152 |
| JOURNALISM | | | | |
| B. S. in Journalism (B. S. J.) | ---- | 60 | 92 | 128 |
| LAW | | | | |
| Bachelor of Laws (LL. B.) | 21 | 50 | ----- | 81 |
| MEDICINE | | | | |
| Bachelor of Science (B. S.) Medical Technician | 25 | 58 | 107 | 141 |
| MINES[5] | | | | |
| B. S. in Eng'g. of Mines (B. S. E. M.) | 30 | 72 | 112 | 152 |
| MUSIC | | | | |
| Bachelor of Music (B. Mus.) | 30 | 64 | 102 | 136 |
| PHARMACY | | | | |
| B. S. in Pharmacy (B. S. Phar.) | | | | |
| Retail Pharmacy | 30 | 70 | 108 | 142 |
| Industrial Pharmacy | 30 | 70 | 108 | 144 |
| PHYSICAL EDUCATION AND ATHLETICS | | | | |
| Bachelor of Science in Physical Education (B. S. P. E.) | 28 | 58 | 92 | 128 |

*Work Done Out of Residence:*

It is the policy of the University to discourage the taking of regular residence courses in absentia. In the case of courses begun at the University and not completed because of illness or for other acceptable reasons however, permission to complete the work in absentia under the direction of the regular University instructors giving the courses may be granted by the Committee on Scholarship; but in such case credit should be given only upon a report of a grade of no less than "C" on final examination.

This regulation does not apply to University extension courses.

### Graduate Degrees

Graduate degrees offered by the departments in the University which have been approved for graduate work are as follows:

[4]For the degree of Bachelor of Science in Education, at least 10 hours of the residence work must be in Education.

[5]Students matriculating with 58 or more hours of credit may graduate with 148 hours, since physical education is not required of these students.

Master of Arts (A. M.)
Master of Music (Mus. M.)
Master of Science (M. S.)
Master of Science in Chemical Engineering (M. S. Ch. E.)
Master of Science in Electrical Engineering (M. S. E. E.)
Master of Science in Civil Engineering (M. S. C. E.)
Master of Science in Mechanical Engineering (M. S. M. E.)
Master of Science in Engineering of Mines (M. S. E. M.)
Master of Science in Home Economics Education (M. S. H. E. E.)
Doctor of Philosophy (Ph. D.)

### Professional Degrees

The following professional degrees are conferred upon graduates of the College of Engineering and Mechanic Arts of West Virginia University on the basis of practical experience and study in absentia, the presentation of a thesis, and an oral final examination.

Engineer of Mines (E. M.) Chemical Engineer (Ch. E.)
Mechanical Engineer (M.E.) Civil Engineer (C. E.)
Electrical Engineer (E. E.)

The department of social work grants a Certificate of Social Work to those students who complete a minimum (including field work) of 30 semester hours of graduate social-work credit.

## EXAMINATIONS AND REPORTS

### Courses

As a rule all courses extend through one semester only.[1]

### Examinations

*Mid-semester and Final Examinations:*

In practically all courses offered in the University, the student receives both a preliminary or mid-semester grade and a final grade. The mid-semester standing of a student is based on the daily recitation grades and a special test given during one or more regular recitation periods. Mid-semester grades are not entered on the Registrar's records. The final grade is based on the class standing for the entire semester and on a written final examination[2] to which a special period of two or three hours is devoted, except that the manner of determining the final grade of seniors and graduate students provisionally approved for graduation at the end of the semester or term is left with the head of the department. Any student not satisfied with his grade, however, has the right to take the examination with his class if he so desires.

*Examination Periods:*

Mid-semester examinations are held usually during the week of each semester immediately preceding the day of the mid-semester reports as set forth in the University Calendar. Final examinations are held during the last week of each semester of the academic year, and during the last two days of each term of the Summer Session.

[1]In the College of Law all courses etxend either through the entire year or through one semester. No credit will be given for less than an entire course except by special order of the Committee on Scholarship. Grades given at the end of the first semester in courses extending throughout the year are merely indicative of the quality of work done by the student to that point and do not give credit for the part of the course so far pursued. Such first-semester grades may be considered in determining the final grade.

[2]See 12 percent rule under "Absences" on page 59.

*Absence from Examination:*

Students are required to take all regular examinations. If a student attends a course throughout the semester and is absent from examination without permission, the instructor shall count the examination as zero and report the final grade as "F". If, in the opinion of the instructor, the absence of the student was for satisfactory reason, the fact will be recorded on the student's class ticket, the grade "I" will be returned, and the student may, upon application to the instructor, take the examination at a later date.

*Conditions and Failures:*

If the final grade of a student in any course is "F" it is recorded as a "failure," and the student must take the course again if he desires to receive credit for it. If the final grade is "I" it is recorded as "incomplete." If a grade of "I" is not removed within the following semester by the satisfactory completion of the work of the course it becomes a failure unless special permission to postpone the completion of the work is obtained from the Committee on Scholarship of the college in which the student is registered. A student receiving a grade of "E" may be given a second examination in the subject in which such grade is received, provided he applies for it at the time of his registration. A grade of "E" not removed within the following semester becomes a failure unless special permission to postpone the examination is obtained from the Committee on Scholarship of the college in which the student is registered. If the final grade after a second examination is again "E" it is recorded as a "failure." No grade higher than "C" shall be reported for the removal of a condition. In the College of Law a student who has received a grade of "D" in any course is privileged, but not required, to take the next regular examination in that course in order to raise his grade to one which carries with it honor points.

## Reports

Mid-semester grades are reported to students' advisers and to deans, but are not recorded in the office of the Registrar.

Final grades are reported by instructors to students' advisers and by them directly to the Registrar's office. Final grades must be in the hands of the class adviser (semester) or the Registrar (summer term)[1] within 48 hours after the closing hour of the examination. This rule also applies to the final grades of all students registered in other colleges or schools of the University who are enrolled in law courses.

The final standing of all seniors provisionally approved for graduation shall be reported by their instructors to the deans or directors of their colleges or schools, and the final standing of all graduate students provisionally approved for graduation shall be reported to the Chairman of the Graduate Council not later than the last day of recitation of the second semester. For this purpose special report cards are supplied by the Registrar.

A report of each student's work is made at the close of the semester or Summer Session either to the student himself or to his parent or guardian.

[1]Final grades are reported by instructors to the Registrar at the end of each term of a Summer Session.

## DISCIPLINE

The rules and regulations which students are required to observe are few, simple, and reasonable: civil and orderly conduct; punctuality and regularity in attendance upon all required exercises; reasonable diligence in the performance of the work prescribed; and abstinence from vices.

Students who do not comply with these requirements will not be allowed to remain in the University.

All matters of discipline are in charge of the Director of Student Affairs and the Committee on Discipline. No student may be expelled without the approval of the President of the University.

### Absences

Each instructor shall be responsible for the attendance of students in his classes, and shall report an excessive number of absences to the dean or director of the college in which the student is registered for such action as may be deemed advisable.

Students who must be absent from class for an extended period of time shall obtain permission for such absence from the dean of the college in which they are enrolled.

All women students who wish to be absent from Morgantown while the University is in session must obtain permission in advance from the office of the Dean of Women.

If a student's absences in any course exceed 12 percent of the total number of recitations in the course he is barred from taking the final examination unless special permission to take such examination is given him by the dean or director of the college concerned and by the instructor.

### Delinquent Students

The dean or director of each college shall make suitable and effective provisions for handling delinquent students registered in his college, subject to the general regulations.

*Probation and Suspension:*

Any student who at the end of any semester fails to make a passing grade in courses amounting to at least half of the total number of semester hours for which he is registered at the end of the second week following the date set for mid-semester reports shall, unless restored to probationary standing, be suspended from the University except that a freshman subject to the operation of this rule at the end of one semester in residence shall be placed on probation for the succeeding semester. If a student suspended under this rule is registered in the School of Medicine, his suspension becomes indefinite.

A student who without permission withdraws from the University or from any class for which he is registered (FIW) shall, unless restored to probationary standing, be suspended from the University.

If a student suspended by operation of one of the above rules re-enters the University and again becomes subject to it, his suspension becomes indefinite.

Any student who fails to make a passing grade in courses amounting to at least half of the total number of semester hours for which he is registered, at the end of the second week following the date set for mid-semester reports, shall be placed on probation for the remainder of the semester.

The dean or director of each college shall make periodic reports of the problems arising from delinquent students to the Council of Administration.

All actions of the Committee on Scholarship and the dean or director of the college that affect the standing of a student shall be reported by the dean to the Registrar.

*Duties of Instructors:*

Instructors shall report the names of delinquent students to their respective advisers at the beginning of each school month except the month in which a mid-semester examination occurs and at such other times as the occasion may arise.

In the event that a student who has not been previously reported for delinquency fails in a subject, the instructor must report to the student's dean or director the reason for the failure.

No report should be made by an instructor until after a conference with the student. If the delinquency is a minor or temporary one, the instructor may await the result of his conference before reporting. Delinquency reports should include all failures to make a passing average and unsatisfactory work on the part of those who are capable of doing a higher grade of work.

All reports shall be made on special blanks and a copy of the report should be given to the student.

*Duties of Advisers:*

All advisers, upon the receipt of the delinquent reports, shall have conferences with the students concerned and shall endeavor to make such recommendations and adjustments as may be within their power.

If the delinquency is due to continued wilful neglect or to failure in one-half of the work for which the student is registered, the adviser shall report the case to the dean of his college, who may, at his discretion, place the student under the jurisdiction of the Committee on Scholarship, and thereafter the adviser shall carry out the orders and instructions imposed by the dean or the committee.

*Duties of the Committee on Scholarship:*

The Committee on Scholarship shall have authority to proceed according to its best judgment in regard to delinquent students referred to it for its consideration.

All orders of the committee shall become effective when approved by the dean of the college.

In the exercise of its authority, the Committee shall not suspend a student during a semester except for wilful neglect and in cases where the student's class grades are so low that further class attendance would be a waste of time. No suspension shall become effective until approved by the dean of the college.

### Student Marriages

If any student under the age of 21 years, who has not been previously married, intends to marry within the school year, he or she must obtain the consent of the parents[1] or guardian before such marriage shall be solemnized, in accordance with the provisions of section 8, chapter 48, revised Official Code of West Virginia, 1931.

In order to insure obedience to both the letter and the spirit of this statute and the policy of the University such student must, not less than one week before said marriage, show satisfactory evidence to the office of the Assistant to the President that the consent of the parents or guardian as required by the statute has been obtained.

In the event that such student does not make such showing to the office of the Director of Student Affairs, regardless of where the marriage ceremony is performed, he or she shall, from the date of such marriage, be automatically suspended, and may only be reinstated upon showing satisfactory reason to the Council of Administration why he or she failed to comply with this regulation.

Where both parties to the marriage are students and one has not complied, with the above rule, both shall be suspended as provided above.

## STUDENT WELFARE

### Director of Student Affairs

The activities of student welfare are under the administration of the Director of Student Affairs. The Director's office is on the second floor of the Administration Building.

### Dean of Women

All interests of the women students in the University are in charge of a special executive officer of the University, the Dean of Women. The Dean's office is on main floor of Elizabeth Moore Hall.

### Convocation

Convocations are held at such times as the Committee on Convocations and Public Exercises finds appropriate and desirable. Attractive programs are provided consisting of devotional exercises, addresses by distinguished speakers, and musical and other entertainment features of special merit.

### Social Center for Women

On the upper campus, opposite Reynolds Hall, is Elizabeth Moore Hall for women, completed in 1928. The building provides for social, recreational, and physical education activities for women students, and was named as a memorial to Mrs. Elizabeth I. Moore. The building is so arranged that facilities for social gatherings constitute a separate unit.

### Student Center

The University Cafeteria has been remodeled for use as a student center offering fountain service, dancing facilities, and dining accommodations for many students.

[1]Or of the parent living, or, if the parents be living separate and apart, of the one of whom was awarded the custody of such person.

### Student Activities

To be eligible to represent the University in public appearances, to hold a staff position on a student publication, to be a candidate for or to hold an office filled by an election conducted by A. W. S. or by the Student Council, or to be a regular member of the University band, a student must have earned at least 12 semester hours of credit and 12 honor points (Arts and Sciences standard) during his or her last previous semester in residence in order to be eligible for public appearances and positions as set forth in this paragraph.

*Associated Women Students:*

All women students of the University are members of the Associated Women Students. The purpose of this association is to regulate all matters pertaining to the student life of its members; to further in every way a spirit of friendliness and unity among the women of the University; to increase their sense of responsibility; and to be a medium for maintaining high scholastic and social standards.

The responsibility for directing the work of the Association rests with the Executive Council, which is composed of the following members: a president, two vice-presidents, a secretary, a treasurer, and a representative from each class. These officers are elected annually by the Association.

In 1921 the Association was admitted to active membership in the Intercollegiate Association of Student Government for Women Students.

### Religious Foundations and Societies

*Foundations:*

As at most state university centers, various state and national church boards have established at West Virginia University foundations for the religious education and nurture of students. For the promotion of common ends, the foundations are grouped into an organization, with student representatives known as the Council of Religious Agencies. Individual faculty men act as advisers. The churches of Morgantown extend a warm welcome to students of all faiths. The physical plant and equipment of each church is available for social, educational, and recreational activities of students.

Newman Hall, 1481 University avenue, is the social and religious center established by the West Virginia Diocese of the Roman Catholic Church for students of that and other faiths. Rev. Joseph Wanstreet is the resident chaplain. Newman Hall is a beautiful building of English collegiate architecture immediately adjacent to the Campus. It is equipped with dormitory facilities for 20 students and also includes a chapel, dining room, lounge, game room, and library.

Trinity Church, Spruce Street, is the center for student work sponsored by the Diocese of West Virginia of the Protestant Episcopal Church and the Church Society for College Work. This work is under the direction of the rector, Rev. Harold M. Wilson, and a director of student work.

The program includes corporate student worship services, meetings of the Canterbury Club, which is one of the National Association of Canterbury

Clubs, for discussion and fellowship, and a college chapter of the Brotherhood of St. Andrew, which conducts a mission project in the territory surrounding Morgantown and sponsors a young men's Bible class at Trinity Church. The Brotherhood of St. Andrew is a world-wide organization of young men in the Anglican Communion who have dedicated themselves to the spread of Christ's Kingdom.

The Presbyterian Student Service Project represents the cooperative efforts of the National Boards of Christian Education and Home Missions of the Presbyterian Church, U. S. A., and of the Synod of West Virginia of the Presbyterian Church, U. S., to make the Christian religion a vital factor in the experiences of students and in the relationships which these students sustain while in the University; and also, through guided Christian activities in the mine camp communities surrounding Morgantown, to train among educated men and women future Christian statesmen. The Rev. Wm. C. Swartz, 304 Willey Street, is the student pastor and director; Dr. Wm. E. Brooks, 316 Allison Street, is the minister of the church.

Wesley Foundation, 503 High Street, is a center for Methodist students. There are three attractive rooms, a kitchenette, and an office. The students are organized into a working cabinet and carry forward a religious educational program consisting of worship, study, fellowship, community service, mining-camp missions, and other extension activities. The program is under the direction of Dr. W. S. Boyd, pastor of Wesley Church, with Mrs. R. J. Friant assigned by the West Virginia Conference of the church as associate director in charge of student activities.

The Baptist student Christian work headquarters are at the First Baptist Church under the direction of Rev. Val H. Wilson as State Director of Baptist student work and student pastor. Dr. O. O. Dietz is pastor of the church. The program includes participation in Bible School, worship services of the church, B. Y. F., and service in mission churches in nearby districts. Student activities are democratically organized and depend in large measure on student initiative and leadership.

The Hillel Foundation Extension Unit, Jewish Center, 240 High Street, of West Virginia University represents the combined efforts of the West Virginia B'nai B'rith Lodges and of the West Virginia State Federation of Temple Sisterhoods to bring the University's students together in religious, cultural, and social activities. The Foundation is under the direction of Rabbi Eugene E. Hibshman, spiritual leader of the Tree of Life Congregation in Morgantown. Prominent lecturers and speakers are featured at regular intervals by the Foundation for the members of the group and for the general student body.

Other churches, while not having special buildings or workers for University students, make definite contributions in ministering to the religious and social needs of University students who belong to their particular faiths. It should be stated in this connection that college students are welcome in all of our churches regardless of what their church affiliations may be, or indeed whether they have any.

*Societies:*

Young Women's Christian Association is a voluntary group of women in the University organized for the purpose of promoting and directing widely varied activities for a religious motive. Through its national and international organization, the Y. W. C. A. joins in fellowship with students throughout the world. Membership in the Campus organization is open to all women students in the University who are in agreement with its purpose. The Y. W. C. A. headquarters are located on the second floor of Elizabeth Moore Hall, and Mrs. Eleanor Wirth directs the activities of the organization.

The University Young Men's Christian Association meets every Wednesday evening in Elizabeth Moore Hall. Professors B. H. Schneider, J. E. Winter, M. L. Vest, F. E. Clark, O. R. Ford, and two ministers of city churches, Rev. W. S. Boyd and Rev. W. R. Hashinger, compose the guidance committee of the Association, whose objectives are broad and whose meetings prove most helpful to the large and growing membership.

Church organizations. The following organizations have been established by Morgantown churches for the purpose of providing wholesome social activities for the students: Kappa Phi—Wesley Methodist; Westminster Girls' Club—Presbyterian; Theta Epsilon—Baptist.

### Student Social Life

The social life of the students in the University is under the general supervision of the Committee on Social Affairs. This Committee has supervision of every social function given by the University or by an organization within it, including fraternities, sororities, and other student societies. Such social functions as dances, picnics, excursions, and receptions are supervised by this Committee.

## PHYSICAL EDUCATION AND ATHLETICS

### Service Programs for Men and Women

Two hours of physical education for men, to be taken during the first year in residence; and four hours of physical education for women, to be taken during the first and second years in residence are required for graduation of students presenting fewer than 58 hours, unless previous credit has been allowed.

Each student who is required to register for physical education is given a complete medical and physical examination at the beginning of the University school year to determine his fitness for active participation in University activities of any description. See Part III for more extended information on the course offerings of these departments.

### Intramural Sports

*Intramural Sports for Men:*

The department of intramural sports for men is organized as one of the departments of the School of Physical Education and Athletics. It is the aim of this department to encourage the entire student body of the University to participate in organized athletic sports and wholesome, active recreation.

Competition will be promoted between student groups, faculty groups, and individuals. The units which are now the natural groups on campus, such as class, fraternity, and unorganized or non-fraternity groups, will form the basis for activities in competitive sports and recreation. It is the desire of the department to foster a spirit of fair play and good sportsmanship in all competition.

All students regularly enrolled in any department in the University shall be eligible to enjoy the intramural privileges, except that they must satisfy certain eligibility requirements for the various activities. All students who are members of the Varsity or freshman squads in a sport, or who have earned a Varsity award (WV) in a sport, shall be ineligible for intramural competition in that particular sport. All students who have won a Varsity award in a sport from another institution of college rank shall be ineligible for intramural competition in that particular sport. Winning a Varsity award in one sport such as basketball will not bar a student from participation in another intramural sport such as baseball. See *Bulletin of the Department of Intramural Sports.*

All competitions conducted by the department are under the control of the Administrative Board composed of the Dean of the School of Physical Education and Athletics, Director of Intramural Sports, Director of the Service Program for Men, Director of Intercollegiate Athletics, Supervisor of Activities, and the senior managers. The coaches of the various Varsity sports are ex officio members of the Administrative Board and vote on questions of eligibility or protests which concern the particular sport they may coach.

The following activities are conducted during the fall season: speedball, touch football, badminton, volleyball, and handball. Other activities may be promoted during this season when there is sufficient interest on the part of the students and where facilities are available. Leagues will be organized to accommodate classes, fraternities, and non-fraternity or unorganized groups.

The following activities are conducted during the winter season: basketball, indoor track, ping-pong, relays, bowling, and basketball free-throwing.

The following activities are conducted during the spring season: softball, horseshoes, and outdoor track.

*Intramural Sports for Women:*

The Women's Recreation Association, together with the department of service program for women of the School of Physical Education and Athletics, sponsors the intramural athletic activities for women. It is the aim of these two groups to encourage all women students to participate in organized sports as a recreational activity. Competition takes place between the organized groups on the Campus such as sorority, dormitory, church, independent, and class groups.

All women enrolled in the University are eligible to play in any intramural tournament. The number of physical education majors permitted to play on any one team is restricted. Interclass tournaments in volleyball, basketball, and baseball are held each year for the professional students in physical education.

The following activities are conducted during the fall season: field hockey, soccer, horseshoes, tennis, and volleyball; during the winter season: badminton, foul-throwing, swimming, basketball, bowling, tumbling, and table tennis; during the spring season: softball and archery. As the demand for more activities develops, the facilities will be increased and the program broadened.

### Intercollegiate Athletics

The activities of the department of intercollegiate athletics are administered by the Director of Intercollegiate Athletics and by the Athletic Board. The board is composed of nine members: five faculty, two alumni, the Director of Intercollegiate Athletics, and one student. The Dean of the School of Physical Education and Athletics serves as the chairman of the board. Instruction and training is given each year in the seasonal sports such as: football and cross-country; basketball, boxing, and wrestling; baseball, track, tennis, and golf. Matters concerning athletic eligibility are decided by the Athletic Board, and scholastic eligibility regulations are established by the faculty of the University.

## THE UNIVERSITY HEALTH SERVICE

The University Health Service, which is a part of the organization of the School of Medicine, is maintained to provide medical service to the students of the University and to supervise general health conditions on the Campus. The staff includes three physicians, five nurses, and a laboratory technician, together with the required clerical personnel. The University Pharmacy, where students may obtain medicine, is managed by the College of Pharmacy. The departments of pathology and bacteriology cooperate in the laboratory examination of diagnostic materials.

The Health Service occupies a well-designed University Health Center constructed in 1941. This three-story building is centrally located on the Campus, fronting on College Avenue adjacent to Reynolds Hall. It is built of brick and concrete and is fireproof throughout. On the first floor are the treatment and operating rooms, offices, and pharmacy. The second floor is occupied by the pathology and X-ray departments, together with the department of pathology. The third floor is well equipped for any and all types of hospital care. The offices of the University physicians are in the Center. Physician's office hours during the regular session are from 9:00 a.m. to 12:00 noon daily except Sunday, and 2:00 p.m. to 4:00 p.m. daily except Saturday afternoon and Sunday. A nurse is on duty at the Center at all times for emergency care. Medical aid may be obtained at any time by calling Extension 123 on the University exchange. The University Pharmacy is open from 9:00 a.m. to 12:00 noon and 2:00 to 4:00 p.m.

Each regularly enrolled University student pays a fee which provides for medical consultation and advice from the University physicans. A moderate additional charge is made for room calls, X-rays, special laboratory tests, minor operations, treatment of fractures, intravenous treatment, and drugs furnished by the pharmacy.

When a student enters the University for the first time, he receives a complete physical examination which includes a blood test, urine analysis,

and tuberculin test. The Health Service also gives special physical examinations to students in competitive athletics, to University food handlers, to employees of buildings and grounds, and to other groups as occasion may arise.

### Student Hospital Service

Each full-time student of West Virginia University shall have added to his regular semester fees a hospital fee of fifty cents ($0.50) per semester, for which he shall be furnished hospital care as hereinafter provided in either the Heiskell Memorial Hospital, Morgantown, West Virginia, or the Mononalia General Hospital, Morgantown, as ordered by a staff members of the Health Service of West Virginia University, subject to the approval of the Director of the Student Health Service. Students in the Summer Sessions shall not be covered by this contract.

In the event of illness or accidental injury which necessitates hospitalization, each student shall be entitled to receive hospital service in either hospital mentioned above. Hospital service shall include accommodation in a private room, meals, general nursing care, hypodermics, use of operating room, three X-ray examinations to one illness, ailment, or injury, as ordered by the attending physician during hospitalization, routine laboratory service as ordered by the attending physician during hospitalization, routine medicines and dressings as supplied by the hospital, plaster casts, and all routine hospital service.

Hospital service to be supplied shall not include the following:

Vaccines, serums, X-ray therapy, artificial eyes, orthopedic appliances, crutches, diagnostic dental X-ray, or basal metabolism.

Hospital care shall not be furnished in the following cases:

Injuries resulting from brawls, strikes, riots, or insurrection; wilfully self-inflicted injuries; acute venereal diseases; insanity; drug addiction; alcoholism; and pulmonary tuberculosis.

Hospital care herein provided for shall be furnished only to students who pay full fees and not to part-time students.

Students registering for the first semester of the academic year shall receive benefits from the date of registration to twelve o'clock midnight of the last day of registration for the second semester. Students registering for the second semester of the academic year shall receive benefits from the date of registration to twelve o'clock midnight of the day on which Commencement Exercises are held, or the closing day of the semester if this day is not prior to Commencement Day. In case of accidental injury or emergency illness while traveling outside the area served by the Hospital Service, and where the student of necessity shall have to be cared for in a hospital having no connection with the Hospital Service, then the Hospital Service shall allow $5.00 a day for a period not to exceed 10 days for all services received in such hospital. Students shall be eligible for hospital benefits described as above only so long as they are members in good standing of West Virginia Universtty: *i. e.*, should a student be dropped from the University register for any reason, his contract shall be cancelled automatically and his hospital fee forfeited.

Each student shall be entitled to an aggregate of thirty days of hospialization during each school year, provided, however, that in case of continuing illness, if hospitalization should be begun during a given semester or term but not completed by the end of such semester or term, the student shall be entitled, in the aggregate, to the same period of hospitalization to which he would have been entitled if had completed it during such semester or term.

Should a student remain in a hospital after having been discharged as a hospital patient by the attending physician, such student shall be responsible to the hospital for the payment of its regular charges for hospitalization after the date of such discharge, and the Hospital Service shall not be liable therefor. This however shall not prevent the student from again entering a hospital for the remainder of the thirty days as herein provided.

Should a student receive hospital service by reason of accidental injuries suffered through the fault or negligence of another party, and the expenses of such injuries be collected by suit or settlement, then said student shall reimburse the Hospital Service; or should part of the expenses of such hospital services be collected by suit or settlement on account of such injuries, then said student shall reimburse the Hospital Service to the extent that such expenses may be so collected.

## EMPLOYMENT AND PLACEMENT SERVICE

*Student Employment:*

Students desiring part-time work may register with H. E. Stone, Secretary of Loans and Placement, either before arrival in Morgantown or after enrollment.

Until the successful completion of at least one semester's regular University curricular work, freshmen should not attempt outside work in self-support unless absolutely necessary. Only the exceptional student can engage in such work or activities during the first semester without danger to his scholastic status.

*The Senior and Graduate Placement Service:*

The University Placement Service for non-teaching positions is in charge of H. E. Stone, Secretary of Loans and Placement. Alumni, seniors, drop-outs, and other students desiring pre-placement guidance or placement assistance may avail themselvs of these services.

This bureau in Room 201, Administration Building, registers candidates for positions, interviews registrants, analyzes the changing markets for graduates, studies the policies and practices of employers in dealing with the college product, arranges interviews between employers and candidates, aids students with regard to the techniques of the employment interview, assists graduates seeking promotion or change of position, cooperates with veterans and with individuals and agencies interested in assisting them, and engages in continuous research in the interest of improving these services.

Contacts with employers have resulted in increased visits to the campus by personnel and employment representatives of various corporations and in saving time for these representatives on the occasion of their visits.

The Placement Service works aggressively to supplement, stimulate, and extend placement activities in the University. The U. S. Civil Service, employment agencies, leading corporations, and the departments, divisions, and colleges of the University cooperate freely with the central placement service. Standard placement application forms are supplied on request.

*Pre-placement and Placement Guidance:*

Educational and occupational guidance in the earlier college years shade off into direct placement guidance and assistance during the senior year and into follow-up or occupational adjustment service after graduation. A placement guidance service is therefore maintained, including an occupational information bureau with a large and expanding collection of books, booklets, leaflets, and other material on careers open to university-trained men and women. An extensive file of company booklets and magazines, federal bulletins, and Civil Service announcements is also available for consultation by registrants.

*The Teacher-Placement Bureau:*

The College of Education, in cooperation with other units of the University, maintains a Teacher-Placement Bureau which makes available to school officials the credentials of students and alumni who are candidates for school positions. The facilities of the Bureau are available to students in both the regular and Summer Sessions. No charge is made for this service.

Blanks for registration will be furnished upon application. The regular annual enrollment in the Bureau takes place the second week in February.

While a conscientious effort is made to place all worthy applicants, no one is assured a position. General letters of recommendation are not given to candidates. Information in the files of the Bureau is regarded as confidential. The Bureau cannot undertake to furnish copies of its records to commercial or other private placement bureaus.

*The Pharmacists' Register:*

A pharmacists' register for the benefit of both the employer and employee has been established by the College of Pharmacy. No charge is made for services rendered.

## GIFTS, SCHOLARSHIPS, AND LOAN FUNDS

Several individuals, as well as national partiotic, educational, fraternal, and religious organizations, have established scholarships, loan funds, prizes, trophies, and medals for students in the University.

### Gifts

Carnegie Corporation Music Collection—Thanks to the generosity of the Trustees of the Carnegie Corporation of New York, West Virginia University in 1936 received as a gift, designed to stimulate and develop an interest in music culturally on the part of the entire student body, a Music Collection that cost the corporation $2,500. The set includes:

An electric phonograph of special design for use in small rooms and auditoriums; approximately 900 records, chosen as an anthology of recorded music, ancient and modern, from oriental and occidental countries; an oak

cabinet with approximately 75 buckram albums in which to keep the records; a duplicate set of printed 3"x5" card indexes of all records in the set, classified by composers, titles, mediums, forms, etc.; bound copies of full scores, when published in miniature, also bound vocal scores of operas and oratorios, which are included for all completely recorded works in the set; lastly, a selection of about 100 books on musical subjects, historical and biographical, and works of reference.

This Music Collection is attractively housed in Elizabeth Moore Hall and its use is administered under regulations designed to make it of greatest possible value to the students of the University.

### Scholarships

American Bankers Association Foundation for Education in Economics Loan Scholarships—The American Bankers Association Foundation for Education in Economics has assigned to West Virginia University three scholarships of $250 each. These scholarships will be "awarded only to deserving students of integrity, intelligence, character, competency, and aptitude, whose means of support are dependent wholly or in part on their own labor, to enable them to continue the study of courses in banking and economics in classes of junior grade or above. Scholarship of the highest rank will not be a definite requirement for a loan scholarship award; however, the Foundation desires to encourage students who will become leaders in professional or business life and does not wish loan scholarships granted to mediocre or inferior students." The holder of one of these scholarships is eligible for one reappointment. The loan is without interest until the first day of the second January after the recipient leaves the University. Beginning on that date, interest accrues at the rate of five (5%) percent per year, and repayment of both principal and interest in sums of no less than $10 monthly must likewise then begin.

Walter Haines South Memorial Scholarship—To perpetuate the name of her deceased brother, a graduate of the University, Mrs. Frederick J. Knutti of Morgantown has created The Walter Haines South Memorial Scholarship. This scholarship, open to deserving men, involves a total of $500 per annum. This fund has been placed in the hands of the West Virginia University Student Loan Fund Corporation for administration. Under the plan of operation of this fund, some one person will be selected who will receive the entire amount of this scholarship fund, without interest, while he is an undergraduate. The amount lent will be repaid over a period of four years after graduation.

The Board of Governors Scholarship in Music—One of these scholarships is to be awarded in the department of voice, one in the department of violin, and one in the department of piano. There will be both preliminary and final contests in voice, in violin, and in piano. Those eligible to take part in the contests will be West Virginia high-school seniors who give promise of becoming eligible for regular enrollment in the School of Music of West Virginia University as candidates for a degree in applied music. Each scholarship to be awarded is to consist of exemption from payment of the contingent fee ($30 each semester) for the four academic years, beginning in the autumn

immediately following graduation from high school and the winning of the scholarship.

The holder of a scholarship must maintain each semester a record of achievement deemed by the Scholarship Committee of the School of Music to be worthy of continuance of the award. Preliminary and final contests will be held in Morgantown, on the campus of West Virginia University, and the dates will be announced.

Charles Irwin Travelli Scholarship—This scholarship amounts to $250 a year and permits the holding student to devote his entire time to his University course. (Suspended for the duration.)

Victor E. Albright Scholarship—This scholarship is worth $200 per year and is to be awarded "to a boy or girl of good character, of fair health and of the White race, who was born and reared in Preston county and who graduated from a high school of Preston county in the year in which the scholarship is given."

Scholarship in Public Speaking—To the winner of first place in each of the four events (debate, oration, extempore speaking, and poetry reading) in the West Virginia Interscholastic Public Speaking Contest will be awarded a four-year scholarship in the College of Arts and Sciences of the University.

The Elizabeth Davis Richards Scholarship in English and Poetry—In memory of Elizabeth Davis Richards, well known West Virginia authoress and patron of the English Club, an annual scholarship in the amount of $50.00 was established by Mr. Del Roy Richards of Morgantown in December, 1936, to be awarded to some worthy upper-division or graduate student in the department of English.

The John Barton Payne Scholarship—The Hon. John Barton Payne, native of Taylor county and late president of the American Red Cross, bequeathed to the University the sum of $12,000, the income from which is to be used to aid two young men—one a native of Taylor county, the other a native of Preston county—to attend the University. Financial need and scholastic merit are prime considerations in making the award.

The Sears Roebuck Agricultural Foundation Scholarships—A grant to the College of Agriculture of $2,000 from the Sears Roebuck Agricultural Foundation of Chicago makes possible the awarding of scholarships each year to upwards of 16 needy, deserving farm boys enrolling as freshmen in agriculture. Individual scholarships amount to from $125 to $150.

The selection of the recipients of each of the scholarships is made by the dean and faculty of the College of Agriculture.

The Richard Aspinall Scholarship—This scholarship was established in 1944 by the Morgantown, West Virginia, Moose Lodge. It pays for the tuition, books, room, and board for four years in any undergraduate college on this Campus that the high-ranking student of Mooseheart, Illinois, may elect.

The Southern States Cooperative Scholarship—Each year the most outstanding high-school student in vocational agriculture who is also a member of the West Virginia chapter, Future Farmers of America, and who matricu-

lates in the College of Agriculture will receive a scholarship award of $100 from the Southern States Cooperative, Inc.

The Junior League Scholarship—This scholarship, providing $150 a year for a graduate social-work student, was established in 1942. It is jointly supported by the five leagues of the state. Applicants must be residents of West Virginia, and all applications must be addressed to the head of the department of social work.

The Board of Governors Latin-American Scholarships—These two scholarships are available to Latin-American students for full-time graduate work in the Department of Social Work. They are equivalent to annual non-resident tuition fees; and recipients are selected by the head of the department.

The West Virginia Federation of Women's Clubs Scholarship—This scholarship provides $300 a year and is awarded to a full-time student in the Department of Social Work. The recipient, selected by the head of the department, must be a resident of West Virginia.

The Morgantown Service League Scholarship—This scholarship provides $150 a year for a full-time student in the Department of Social Work. The student must be a resident of the state and approved by the head of the department.

The State Department of Public Assistance Scholarships—These social work scholarships ranging from small sums up to a maximum of $110 a month for six months, are available to selected employees of the department who hold an undergraduate degree from an accredited college or university. Application for these scholarships must be made to the chief of the Division of Social Services or to the chief of the Division of Child Welfare of the State Department of Public Assistance, Charleston. Such students must also be approved by the head of the Department of Social Work.

The pharmacists of West Virginia, individually and collectively, have provided a number of scholarships in the amount of $150 per year for capable high-school graduates needing financial assistance to assist in their pharmaceutical education. The final selections of these scholarships are made by a committee of the West Virginia State Pharmaceutical Association. Additional information may be obtained from the Dean of the College.

The American Foundation for Pharmaceutical Education—This foundation, in order to stimulate an interest for pharmacy as a profession among capable high-school graduates, has assigned several scholarships to the College of Pharmacy. Each scholarship or grant covers tuition fees for one year. Selections for the awards are made by the faculty of the College and are awarded on the basis of scholarship and financial need. The holder may be eligible for reappointment. Additional information may be obtained from the Dean of the College.

### Loan Funds

The following loan funds are administered through the office of the Secretary of Loans and Placement with the cooperation of advisory committees, University officials, and alumni. Applications may be filed with Mr. Stone, 308 Administration Building.

The J. D. Finley Fund—A fund of $1,000 was contributed to the University by the trustees of the estate of the Hon. J. D. Finley of Pittsburgh, Pa., in accordance with his last will and testament, to be used as loans to deserving students in the School of Medicine.

The Theodore Smith Fund—On April 13, 1930, Theodore Smith was drowned in the Monongahela River. The tragic death of this student disclosed the fact that he was being financed through the University by the late Hon. James Elwood Jones. The youth had taken out a life insurance policy of $2,000 with Mr. Jones as beneficiary. In deference to the memory of Theodore Smith, Mr. Jones turned the $2,000 over to the University for the establishment of the Theodore Smith Fund.

The Revolving Emergency Fund for Men—A fund to meet emergencies of University men was established in October, 1931. The principal of this fund amounts to about $3,000. H. E. Stone, founder of the fund, is treasurer. Loans are made in small amounts and for short periods of time after registration. About 2,000 loans have been made from this fund since it was established. In 12 years its loans have aggregated approximately $21,000.

The Baltimore and Ohio Railroad Fund—A special fund for small loans to students registered in the College of Agriculture has been established by the Baltimore and Ohio Railroad. The Secretary of Loan Funds acts as treasurer of this fund.

The Chauncey Watson Boucher Fund—This fund was established in 1936 by former President C. S. Boucher in memory of his father. Seniors from West Virginia may borrow only for the payment of University fees. Loans must be repaid within two years and are without interest.

The Charles E. Lawall Fund—Established in 1939 for small loans to worthy students in need of financial aid; available to regularly enrolled students in all classes whose scholastic record has been satisfactory; interest payable only for periods in excess of time for which the loan is granted.

Alfred Walker Fund—A special fund for small loans to Pharmacy students was established in 1938 by Dean J. Lester Hayman in honor of the memory of Mr. Alfred Walker of Sutton, first president of the West Virginia Pharmaceutical Association and, for many years, secretary of the State Pharmaceutical Association.

The John W. Davis fund, established for the making of loans to outstanding law students, aids several worthy students each year.

Theh P. C. Thomas Fund—In May, 1943, the P. C. Thomas loan fund was established in memory of the late P. C. Thomas of the Koppers Coal Company. The initial contribution made by employees of the Company was $520.

The Kellogg Foundation Fund—The Kellogg Foundation in 1942 allotted $5,000 to West Virginia University for loans to students in the School of Medicine. Loans from this fund may not exceed $150 during any academic year. The total loan to one student may not exceed $250. Interest is charged at the rate of 2 percent. Students may not borrow until after the successful completion of one term in the School of Medicine.

The Permanent Endowment Loyalty Loan Fund of the W. V. U. Alumni Association—This fund was established some years ago by contributions of alumni and other friends of the University. It is a permanent trust fund, the income of which is available to worthy students.

West Virginia State Conference of Social Work Fund—In 1940 the State Conference of Social Work established a student loan fund for the department of social work, such fund to be granted, without interest, to eligible full-time graduate social-work students who are residents of West Virginia.

Many other off-campus loan funds cooperate with the Office of the Secretary of Loans and Placement. These include the funds of various Masonic and other fraternal bodies, social fraternities, civic clubs, church boards, religious associations, and other organizations. The Morgantown Rotary Club fund has also aided many men by small loans in emergencies. Information concerning those funds may be obtained from the Secretary of Loans and Placement.

## PRIZES, TROPHIES, AND MEDALS

### Prizes

Awards for prizes in the University are made in accordance with the following rules:

No composition, in whole or in part, shall be submitted in competition for two prizes.

Only students pursuing courses leading to baccalaureate degrees are eligible for any prize offered, except for the James F. Brown prize.

No student shall be eligible to enter any contest who has not been a resident student in this University for at least one semester preceding the semester in which the contest is to be held, and who, unless he be a competitor for the James F. Brown prize, is not a resident student in good standing in the University in the semester in which the contest is held.

No successful contestant may become for a second time a competitor for the same prize.

If in any contest the judges find no manuscript of sufficient merit, there shall be no award of the prize for that year.

Students intending to compete in any essay-writing contest must notify the chairman of the Committee on Prizes not later than March 15. Three typewritten copies of each essay must be in the hands of the chairman of the committee not later than May 15.

The conditions upon which the awards in the several contests are made may be learned upon application to the office of the Assistant to the President, or to the members of the Committee on Prizes.

The Tax Commission Prize—The honorable members of the State Tax Commission of 1902, namely, W. P. Hubbard, Henry G. Davis, John K. Thompson, L. J. Williams, and J. H. Holt, gave the sum of $1,350 later increased by unawarded sums to $1,500, the income of which is to be used annually as a

prize for the "best original work bearing on matters of taxation in West Virginia." The conditions of the competition are determined by the Council of Administration. The amount of the prize at present is $50. The subject assigned for 1945-46 is "Some economic and legal aspects of tax-exempt property in West Virginia."

The James F. Brown Prize—The Hon. James F. Brown, an alumnus of the University, "with a desire to stimulate the young men of the State to fuller consideration of the 'inalienable right' of mankind, and especially those guaranteed by the Constitution of the State and of the United States," has contributed $5,000 to the University, the income of which is to be "used as a prize for the best essay or paper each year on the subject of the individual liberties of the citizen as guaranteed by the Constitution." The income may be given as a single prize, or it may be divided into a first and second prize. For the present the award will be made as a single prize, $200 in amount. Any regularly enrolled student in any school or college of the University or any student within one year after receiving an undergraduate degree may compete for this prize. Graduates of the College of Law or of the School of Medicine or holders of any post-graduate degree are not eligible to compete for this prize. The subject assigned for 1945-46 is: "Constitutional guarantees of religious freedom."

The West Virginia State Pharmaceutical Association Prize—The West Virginia State Pharmaceutical Association offers to the student making the best set of drawings in Pharmacy 10 a two-year, paid up membership in the American Pharmaceutical Association.

The Waitman Barbe Memorial Prize—The English Club of West Virginia University offers an annual prize of $25 in memory of Waitman Barbe, poet, scholar, and adviser of the English Club during his long term of service on the Faculty. The prize is awarded to some student regularly enrolled as a junior or senior in West Virginia University, for creative work in the field of literature, either in prose or poetry or both. The minimum length of such composition must be 4,000 words in prose or 100 lines in poetry.

The Board of Governors Military Essay Prize—The Board of Governors of West Virginia University each year offers a prize of $50 to the cadet in the Division of Military Science and Tactics "who shall write the best essay on preparation against war."

Chi Omega Sorority Prize—The Chi Omega sorority offers an annual $15 prize to the sociology major with the highest academic ranking. All work done at West Virginia University is taken into account and no student is eligible to compete for the prize unless his junior and senior years have been spent at West Virginia University. The prize is awarded at the annual June Commencement.

Phi Lambda Upsilon Fraternity Prize—Phi Lambda Upsilon, honorary chemical fraternity, offers annually the Alexander Reed Whitehill award to the student receiving the highest grade in chemistry during the freshman year. The award consists of an engraved ornament.

The R. A. West Prize for Engineering Students—R. A. West, an alumnus of the University, because of his interest in the College of Engineering and in the young men who have been and are students there and with the further idea of promoting sound scholarship, offers a prize of $50 to the member of the graduating class of the College of Engineering in June who has maintained the highest scholarship as measured by his honor-point average.

Tau Beta Pi, honorary Engineering fraternity, each year offers an engraved cup to the sophomore Engineer who during his freshman year maintained the highest average in his class.

The Nathan Burkan Memorial Prize—The American Society of Composers, Authors, and Publishers has established the Nathan Burkan Memorial Competition, open to the leading universities and colleges of the country that offer a course in law. A prize of $100 is available in each institution, to be awarded to the student in the graduating class in law who prepares the best paper on the subject of "Copyright Law."

Prizes in Public Speaking—In each of the four events (debate, oration, extempore speaking, and poetry reading) in the West Virginia Interscholastic Public Speaking Contest a gold medal is awarded to the winner of first place; a silver medal to the winner of second place; and a bronze medal to all other speakers who participate in the semi-finals at the University. Each high school represented by a winner of first place is presented with a beautiful wall plaque with the escutcheon of the University mounted upon it.

The Intercollegiate Peace Association of America provides $100 in cash prizes to be awarded as follows: $50 for first prize; $30 for second prize; and $20 for third prize in the annual Intercollegiate Peace Oratorical Contest. This contest is held under the auspices of the department of public speaking of the University and each institution of higher learning in the state is entitled to send one representative.

West Virginia Oil and Natural Gas Association prize for students in the School of Mines—In order to stimulate interest on the part of oil and natural gas engineering students in their profession, the West Virginia Oil and Natural Gas Association offers a prize of $25 each year to a member of the graduating class of the School of Mines. The student must be enrolled in the oil and natural gas option, and his scholarship must be the highest of that group as measured by his honor-point average.

West Virginia Coal Mining Institute prize for students in the School of Mines—In order to stimulate interest on the part of mining engineering students in their profession, the West Virginia Coal Mining Institute offers a prize of $25 each year to the members of the graduating class of the School of Mines. The student must be enrolled in the coal mining option, and his scholarship must be the highest of that group as measured by his honor-point average.

The Margaret Ann Cuthbert Music Prize—An annual prize of $25 in memory of his mother has been established by Frank Cuthbert, Director of the School of Music. It is awarded to the outstanding senior graduating from the School of Music and chosen by the faculty of that school for high scholastic standing and professional promise.

### Trophies

Alpha Epsilon Delta Prize—The Alpha of West Virginia chapter of Alpha Epsilon Delta offers each year a silver cup to the freshman pre-medical student who has made the best scholastic record for the year in chemistry and zoology.

The Inter-Fraternity Scholarship Trophy—Professor Arleigh Lee Darby of the department of Romance languages and literature offers a silver cup known as the Inter-Fraternity Scholastic Trophy. It is awarded at the end of the University year to the fraternity having the highest average scholarship standing for that year and is to remain in the possession of that fraternity during the following year. The cup becomes the permanent property of the fraternity that first wins it five times.

The George C. Baker Trophy—The Hon. George C. Baker, graduate of the College of Law, offers a silver loving cup, possession of which is awarded each year to the Club Court in the College of Law winning the inter-club competition.

The Sports Shop Trophy—The Sports Shop of Clarksburg offers a handsome trophy to the fraternity scoring the second highest number of points in the all-year athletic competition for fraternities. This trophy becomes the permanent possession of the organization winning it once.

The Morgantown Post Trophy—The Morgantown Post, evening newspaper, offers a trophy which is symbolic of the inter-fraternity championship in basketball and is the permanent possession of the organization winning it once.

Pan-Hellenic Association Scholarship Cups—The Pen-Hellenic Association offers two scholarship cups. Any sorority which is a member of the Women's Pan-Hellenic Council may compete for the cup, and it is awarded each year to the group having the highest average. The woman's fraternity which has maintained the highest average for three consecutive years is given permanent possssion of the cup. The Pen-Hellenic Association also offers a cup each year to the pledge group which maintains the highest average.

### Medals

The Lehn and Fink Medal—Through the generosity of Lehn and Fink, manufacturing chemists of New York City, the College of Pharmacy awards each year to the senior pharmacy student who, in the opinion of the Faculty of the College of Pharmacy, attains the highest scholarship a gold medal. The medal is appropriately engraved.

## HONOR SOCIETIES

Phi Beta Kappa—The Alpha of West Virginia chapter of the Phi Beta Kappa Society is established at the University. Stated meetings or public exercises of the society are held twice annually; the anniversary meeting on December 5, and the annual meeting during Commencement Week. The honor of membership may be conferred upon candidates for the degree of Bachelor of Arts who have maintained a high scholarship rank during their college course; also, upon members of the Faculty and alumni of the University, and upon distinguished citizens of the state.

Sigma Xi—The Society of the Sigma Xi is a national honorary society devoted to the advancement of research in pure and applied science. Membership may be conferred upon faculty members and students who show outstanding ability in some field of scientific research.

Tau Beta Pi—The West Virginia Alpha chapter of the national engineering honor association of Tau Beta Pi was established in the College of Engineering in 1922. Students who rank in scholarship among the upper one-eighth of their class are eligible to election in their third year and all who rank among the upper one-fourth of the class are likewise eligible in their fourth year. These together with alumni and honorary members constitute the chapter.

Alpha Zeta—The West Virginia chapter of Alpha Zeta, the national agricultural honor fraternity, was instituted in the College of Agriculture in 1921. Sophomores and upperclassmen who maintain high standing in scholarship and rank among the upper two-fifths of their respective classes are eligible to membership.

Phi Upsilon Omicron—The Lambda chapter of Phi Upsilon Omicron, one of the national professional organizations in home economics, was established at the University in November, 1923. Its purpose is to promote the moral and intellectual development of its members, to help to develop leadership, and to advance home economics. Membership is open to juniors and seniors in home economics who rank in the upper two-fifths of the class in scholarship and who meet certain personality standards.

Phi Lambda Upsilon—The Tau chapter of Phi Lambda Upsilon, national chemical honor fraternity, was established at the University in 1924. The chief object of the society is the promotion and protection of high scholarship and original investigation in all branches of pure and applied chemistry. Seniors and juniors who have attained a high standard of scholarship and character are eligible for membership.

Sigma Gamma Epsilon—Upsilon chapter was established at West Virginia University in 1927. The fraternity has for its objects the social, scholastic and scientific advancement of its members, the extension of the relations of friendship and assistance between the universities and scientific schools with recognized standing in the United States and Canada, and the upbuilding of a national college society devoted to the advancement of geology, mining, metallurgy, and ceramics. Seniors and juniors in the courses indicated, who have attained high scholarship rank, are eligible for membership.

Order of the Coif—A chapter of the Order of the Coif, a national law school honor society, was installed in 1925. Its members are selected by the Law faculty from the 10 percent of the senior class in the College of Law ranking highest in scholarship.

Phi Epsilon Phi—Phi Epsilon Phi, botanical honor fraternity, was founded at West Virginia University in 1929. The fraternity has for its purpose the promotion of high scholarship, the inciting of interest in botanical research, and the encouragement of professional ideals. Seniors and graduate students

who are engaged in botanical work and who have attained a high standard of scholarship and character are eligible for membership in the organization.

Kappa Tau Alpha—National journalistic honor society with special emphasis on high scholarship and the best professional ideals. There are chapters in 22 universities. The West Virginia chapter was established in 1930.

Sigma Pi Sigma—Theta chapter of Sigma Pi Sigma, national physics honor society, was installed in the University in 1929. The formal statement of the objects of the society is: "To reward high scholarship and promote interest in the advanced study of physics, to stimulate individual research, and to enable its members to keep pace with the progress of science." A student elected to membership must be taking some course in physics at the time of his election. Graduate students who are taking advanced work in physics and related subjects are eligible for membership.

Kappa Delta Pi—Kappa Delta Pi, national honorary educational society, installed Alpha Upsilon chapter at West Virginia University, July 21, 1927. Election to this fraternity is conditioned upon high scholarship and desirable personal and professional qualities.

Alpha Epsilon Delta—The Alpha of West Virginia chapter of Alpha Epsilon Delta was established at West Virginia University in 1930. The chief object of the society is the promotion of high scholarship among pre-medical students. Juniors and seniors of high scholarship and character are eligible for membership.

Pi Tau Sigma—The West Virginia Pi Gamma chapter of Pi Tau Sigma was installed at West Virginia University on March 31, 1942. This is an honorary mechanical engineering fraternity with chapters in 35 universities. Seniors and juniors in mechanical engineering who have attained high scholarship rank are eligible for membership.

## OTHER UNIVERSITY ORGANIZATIONS

There are in the University various fraternities, sororities, societies, and clubs devoted chiefly to the social, educational, and atheltic interests of the students. Some of the more important of these organizations are:

### National and Greek Letter Societies

### SOCIAL FRATERNITIES

*Men*

Beta Theta Pi
Delta Tau Delta
Kappa Alpha
Kappa Sigma
Phi Delta Theta
Phi Kappa Psi
Phi Kappa Sigma
Phi Kappa Tau
Phi Sigma Delta
Phi Sigma Kappa
Pi Kappa Alpha
Pi Kappa Phi
Pi Lambda Phi
Sigma Chi
Sigma Nu
Sigma Phi Epsilon
Tau Kappa Epsilon
Interfraternity Council

*Women*

Alpha Delta Pi
Alpha Phi
Alpha Xi Delta
Chi Omega
Delta Gamma
Kappa Kappa Gamma
Phi Mu
Pi Beta Phi
Sigma Delta Tau
Pen-Hellenic Association

## PROFESSIONAL FRATERNITIES

*Men and Women*

Alpha Kappa Psi (Economics)
Alpha Psi Omega (Dramatic)
Delta Phi Alpha (German)
Delta Sigma Rho (Forensic)
Eta Sigma Phi (Latin)
Phi Delta Phi (Law)
Phi Alpha Delta (Law)
Phi Beta Pi (Medical)
Phi Chi (Medical)

### National and Local Organizations

Agricultural Club
Associated Women Students
Athletic Managers Club
Cadet Hop Association
Camera Club
Christian Youth Council
Circolo Italiano (Italian)
Dames Club
Der deutsche Verein (German)
Dolphin Club (Physical Education)
English Club
F. F. A. Club (Collegiate)
Forestry Club
Forum
Future Teachers of America
Home Economics Club
International Relations Club
Journaliers (Men, Journalistic)
La Tertulia (Spanish)
Le Foyer Francais (French)
Li-Toon-Awa (Sophomore women)
Matrix (Women, Journalistic)
Men's Glee Club
Mortar Board (Senior Women)
Mountain (Men)
Outing Club
Orchesis (Women, Physical Education)
Philological Society
Physical Education Club
Pre-Law Fraternity
Press Club (Journalism majors)
Public Affairs Club
Rhododendron (Junior women)
Rowan Rifles (Military)
Scabbard and Blade (Military)
Sociology and Social Work Club
Speech Club
Sphinx (Senior men)
"Spiked Shoe" (Track and field)
Student Forum
University Band
University 4-H Club
University and Community Chorus
University and Community Orchestra
University Religious Council
University Scientific Society
Veterans' Association of World War II
Woman's Hall
  North Wing
  South Wing
Women's Recreation Association
Women's Glee Club
Women's Pan-Hellenic Association
  (Intersorority)
Student branches of the following:
  Amer. Inst. of Chemical Engineers
  Amer. Society of Civil Engineers
  Amer. Inst. of Electrical Engineers
  Amer. Society of Mechanical Engineers
  Amer. Inst. of Mining and Metallurgical
    Engineers
  Society of American Military Engineers

### Faculty Organizations

American Association of University Professors—The West Virginia University chapter of the American Association of University Professors now has a membership of approximately 50. The present officers are: J. G. Leach, president; Greek Sayre, vice-president; E. O. Roberts, secretary.

Faculty Club—The Faculty Club of the University, organized on March 10, 1921, is composed of the teaching, research, and extension staffs of the institution. The club rents a house at the corner of Pleasant and Spruce Streets, which serves as a club house and residence. Meals are served to members and their guests. The club rooms provide a center for social activities of members of the Faculty.

Campus Club—The Campus Club is purely a social organization made up of women on the University staff as well as the wives of men on the staff. The club holds meetings twice each month and special meetings and functions at other times.

Cornell Club of Morgantown—The Cornell Club of Morgantown is an alumni social organization founded in 1925. Membership is open to graduates and former students of Cornell University who live in this region and to their husbands and wives. The club holds an annual meeting and dinner and other occasional meetings at which speakers from Cornell are heard.

The officers are: president, C. F. Taylor; vice-president, F. D. Cornell, Jr.; secretary, W. H. Childs; treasurer, D. W. Parsons.

West Virginia Alumni Association of Johns Hopkins—The West Virginia Alumni Association of Johns Hopkins was founded in 1913 and holds annual meetings on February 22, the anniversary of the establishment of Johns Hopkins University. Graduates and former students of Johns Hopkins are eligible for membership. C. E. Weakley, Jr., is president; Hubert Hill, Jr., vice-president; and Friend E. Clark, secretary.

Wisconsin Alumni Club—Graduates and former students of the University of Wisconsin are eligible to membership in this organization, which holds social meetings at which speakers from that university are heard. Edw. H. Tyner is the present president of the club, organized in 1937.

The University of Michigan Alumni Club—The University of Michigan Club of Morgantown was founded in the spring of 1942. Graduates and former students of that university and their husbands or wives are eligible for membership. The purpose is to foster the interests of their alma mater and of other state universities and to promote closer fellowship among the local alumni. Guest speakers from the University of Michigan and from the local community are invited to quarterly meetings and social functions. Officers are: president, J. A. Graham; vice-president, Wm. Brondyke; secretary-treasurer, Mrs. L. H. Leonian.

## PUBLICATIONS

### University Publications

The following publications are issued regularly at the University:

1. The *West Virginia University Bulletin* issued monthly during the University year. The series includes the Catalogue of the University and the Announcements of the various colleges and schools as well as other occasional publications.

2. The bulletin and circulars of the Agricultural Experiment Station.

3. The circulars of the Agricultural Extension Division, including the *Farm Women's Club* leaflets, the *4-H Suggestions,* the *Neighborhood Leader's Digest,* the *Treasures of the Trail,* the *West Virginia Farm News* (in cooperation with the West Virginia Farm Bureau), and special pamphlets.

4. Agricultural News Service bulletins published weekly by the College of Agriculture.

5. The bulletins of the College of Engineering and Mechanic Arts and of the School of Mines.

6. The *West Virginia Law Quarterly,* the official publication of the West Virginia Bar Association, edited by the faculty of the College of Law.

7. Miscellaneous publications under the title of *Philological Studies* or *Biological Studies.*

8. The annual *Proceedings* of the West Virginia Academy of Science.

9. The West Virginia *Fourth Estatesman,* a quarterly publication edited by the faculty of the School of Journalism.

### Student Publications

The *Athenaeum,* University student newspaper, is published semi-weekly by students of the School of Journalism. Heads of the editorial and business staffs are elected by the student body from candidates certified by the School of Journalism faculty and approved by the Committee on Student Publications.

The *Monticola,* student yearbook of the University, is usually published by the junior class. The editorial and managerial staff is elected by the student body. (Suspended for the duration.)

The *Moonshine,* student humorous magazine, is published by a selected board chosen from the student body. (Suspended for the duration.)

The *Student Directory,* the annual directory of the student body, is published by a selected board chosen from the student body.

The *Freshman Handbook* is published annually by a selected group of students and is distributed to each member of the entering class. It is wholly a non-profit enterpise. (Suspended for the duration.)

The *Cruiser,* a professional forestry magazine, is published annually by the West Virginia University Forestry Club. The managing editor is appointed by the executive board of the club. (Suspended for the duration.)

All student publications are under the supervision of the Committee on Student Publications.

## ASSOCIATED INSTITUTIONS

### The West Virginia Academy of Science

Organized in 1924 to bring about closer affiliation among the scientists of the state and to encourage the pursuit of scientific work throughout the commonwealth, the West Virginia Academy of Science is a body of nearly 300 men and women who are interested in the service of science in the development of the state. The members are widely distributed throughout the state and are representative of colleges, high schools, and industries. Annual meetings, held at the various institutions of higher learning, are divided into sections on biology, chemistry, geology and mining, mathematics and physics, and social sciences. Transactions of the annual meetings are published under the auspices of the University.

### The West Virginia Geological and Economic Survey

The West Virginia Geological and Economic Survey, situated at West Virginia University, is governed by its own commission and receives separate appropriations.

One of the major purposes of the Survey is to have members of its staff, specialists in their field, investigate all the natural resources, and especially the mineral resources, of the state and to make the results of the investigations available to the public in the form of written reports and maps.

The Geological Survey was founded by an Act of the Legislature in 1897 and has functioned consistently since that date. It is recognized as one of the leading state surveys.

Accomplishments of the Survey include the complete topographic mapping of the state on 1-mile-to-the-inch quadrangles; the complete geologic mapping of the state by counties, and a state geologic map; the complete mapping of the soils of the state by counties; and the state relief map (scale 1 inch equals 4 miles).

Numerous special reports also have been made on coal, oil, gas, clays, limestones and cement, iron ores and building stone, mineral springs, manganese, deep-well records, salt brines, rock salt, and forest and wood industries.

The professional staff of the Survey is composed of four geologists and four chemists. Some of the staff members of the Survey serve as part-time teachers in the department of geology of the University, and there is close cooperation between the department and the Survey. Several members of the staff are in the Army and Navy, on leave of absence.

Government of the Survey is vested in the Geological Survey Commission, composed of the Governor of West Virginia, the State Treasurer, the Commissioner of Agriculture, the President of West Virginia University, and the Director of the Agricultural Experiment Station.

### The West Virginia Biological Survey

The West Virginia Biological Survey is an organization of voluntary workers whose purpose is the collection of information of every kind about the plants and animals of the state.

The executive committee consists of a biologist from each of the colleges of the state with a chairman, secretary, and curator. There are no dues, and membership is open to all persons interested in the work of the Survey.

The repository for the plant and animal collections is in Science Hall, West Virginia University, Morgantown, and Marshall College, Huntington. Under the direction of the Survey a series of bibliographies dealing with the biology of the state is being published.

The Survey, in cooperation with the Carnegie Museum, Pittsburgh, Pennsylvania, during several summers has maintained one or more field collectors whose work has taken them into all parts of West Virginia. An increase in knowledge of biological conditions in the state has resulted from this work.

### The State Road Commission

The Materials Laboratory of the State Road Commission is housed in Mechanical Hall of the University. Its work includes the testing of all materials used by the Commission, such as cement, aggregates, steel, bituminous materials, paints, gasolines, and oils.

# Part III

# Curricular Requirements and Courses of Instruction In the Colleges, Schools, and Divisions

## Abbreviations for Part III

The following abbreviations are used in the announcements of courses:

I—A course given in the first semester.

II—A course given in the second semester.

I, II—A semester course given in each semester.

I and II—A course given throughout the year.

s—A course offered only in the Summer Session.

Hrs.—Number of credit hours per course.

PR—prerequisite.

†—Course omitted, 1945-46.

## The Plan for Numbering Courses

For convenience each course of study is designated by the name of the department in which it is given and by the number of that course. The plan of numbering is as follows:

Courses 1 to 99—courses intended primarily for freshmen and sophomores.

Courses 100 to 199—courses intended primarily for juniors and seniors.

Courses 200 to 299—advanced courses open to juniors, seniors, and graduate students.

Courses 300 to 399—Courses open to graduate students only.

## Schedules

Before the opening of each semester, a schedule is printed announcing the courses to be offered in that semester in the College of Arts and Sciences, the College of Education, the School of Music, the School of Physical Education and Athletics, the School of Journalism, and the Division of Home Economics in the College of Agriculture, Forestry, and Home Economics. Schedules are prepared for the College of Agriculture, the College of Engineering, the College of Law, the College of Pharmacy, and the School of Medicine but are not printed. A complete schedule of all courses offered in the Summer Session is printed in the Summer Session Bulletin.

# The College of Agriculture, Forestry, and Home Economics

## ORGANIZATION

All the agricultural and home economics work of the University is organized under the College of Agriculture, Forestry, and Home Economics. For the purpose of administration the College is divided into three branches: viz.,

I. The Agricultural Experiment Station, organized for research and experimental work.

II. Resident instruction in agriculture, in forestry, and in home economics.

III. Extension work in agriculture, home economics, and boys' and girls' club work, given by the Division of Agricultural Extension to citizens of the state who are not in residence at the College.

The work of these divisions is closely interrelated. Although some members of the staff devote full time to college instruction, research, or extension work, many others divide their time among two or three of these divisions.

### The Standing Committees

STUDENTS' COURSES AND HOURS: Messrs. Orton, Peairs, Parsons, Percival; Miss Noer.

SCHOLARSHIP: Messrs. Pohlman, Percival; Miss Nesbitt.

STUDENT PLACEMENT AND FARM PRACTICE: Messrs. Henderson, Livesay, Parsons, Marsh, and Cornell.

LIBRARY:[4] Messrs. Leach, Dustman, Erickson, Cartledge, and Sudds; Miss Palmer.

STATION PROJECTS: Messrs. Tyner, Erickson, and .....

STATION PUBLICATIONS: Messrs. VanLandingham, Schneider, and Wilson.

STAFF CONFERENCES: Meesrs. Brooks, Childs, and ..... ; Misses Noer and Humphreys.

WAR PLANNING:[5] Messrs. Cornell, Anderson (BAE), ....., Brewer (BAE), Ellyson (FSA), Ferry (SPB), Galpin, Gist, Gray, Lough (SCS), Livesay, McLaughlin (State Commissioner of Agriculture), Percival, Pohlman, and Wood (ACP); Miss Noer.

[4]Joint Committee of the College and Experiment Station.
[5]Joint Committee of the College, Experiment Station, Extension Division, Farm Security Administration, and Soil Conservation Service.

## The Agricultural Experiment Station

The Agricultural Experiment Station was established in the University by the Board of Regents in 1888 by authority of an act of Congress known as the Hatch Act. Further support was given by acts of Congress known as the Adams Act, approved June 30, 1906, the Purnell Act, approved February 24, 1925, and the Bankhead-Jones Act, approved June 29, 1935. The work of the Station is supported also by state appropriations.

Investigations are being conducted by the Station in the fields of animal husbandry, animal pathology, dairy husbandry, poultry husbandry, field crops, horticulture, entomology, plant pathology, agricultural chemistry, soils, land use, water problems, farm economics, farm mechanics, forestry, physiology, and nutrition, classified into about 80 research projects.

In addition to the five farms situated at Morgantown, described elsewhere in this Catalogue,[1] branches of the Agricultural Experiment Station are maintained at Wardensville, Hardy County; Lakin, Mason County; Kearneysville, Jefferson County; and Reedsville, Preston County. Experimental work is also being carried on elsewhere throughout the state.

## Agricultural Extension

By act of the Legislature of 1913, amended in 1915, "in order to promote the improvement and advancement of agriculture, domestic science, and rural life among the people of the several counties of the state," there was "created and established in the College of Agriculture an Agricultural Extension Division to be coordinate with the resident instruction division and the Agricultural Experiment Station" of the College. This service is financed and administered with the cooperation of federal, state, and county governments.

The work originally undertaken has been expanded subsequently to include the 4-H Club Camp for boys and girls, established at Jackson's Mill in 1921 for the purpose of teaching standards of excellence in agriculture and home economics, and the recreation center, established at Oglebay Park (Wheeling) in 1926, which has undertaken the task of developing adequate programs for improving the use of leisure time of both rural and urban citizens and for the training of community leaders.

## Short Courses and Special Schools

In addition to the instruction of collegiate grade offered, the College of Agriculture maintains a series of annual short courses and special schools for the benefit of adult residents in the state who wish to obtain, in brief periods, education in certain fields. This series includes the Dairy and Ice Cream Short Course, the Horticulture Extension School, Farm and Home Week, Junior Farmer's Week, the Garden School, and the Junior Homemakers' Conference. During the war some of these events may be discontinued.

[1]See page 32.

## THE DIVISION OF AGRICULTURE

The training offered in agriculture is directed to fit the student for farm life or for professional and business fields. Graduates may engage in farming as managers or as farm owners, in the teaching of agriculture in high schools or colleges, in extension work as county agents or specialists, in research work in experiment stations or other organizations, or in many of the recently established federal activities in aid of agriculture. They may engage in business related to farming such as dairy manufactures, meat processing, seeds and nursery stock, feeds and fertilizers, or marketing.

The curriculum leading to the degree of Bachelor of Science in Agriculture is designed to provide a broad and well-grounded training in the general field of agriculture so that the graduate may be prepared for occupations requiring such general knowledge, and may have the necessary foundation for such specialization as he may elect to pursue.

All candidates for the degree will follow a uniform curriculum for the first two years, which includes courses in the sciences that are fundamental to agriculture, together with certain specified courses in agriculture. During the third and fourth years a certain amount of selection is permitted which will enable the student to meet special requirements in various fields, such as animal industry, plant industry, dairy manufactures, and agricultural education. In the last-mentioned field he may qualify for the teacher's certificate in Vocational Agriculture. Or the student may make the elective work broader in its scope and prepare for some phase of extension activity or for general farming; or he may choose the Agricultural Science curriculum, which will serve as a foundation for later graduate work in some scientific phase of agriculture.

For the use of the students the following laboratories are maintained in the college: agricultural chemistry, agronomy, soils, genetics, animal husbandry, animal pathology, dairy husbandry, entomology, farm economics, farm shop work, horticulture, nutrition, plant pathology, and poultry husbandry.

### The Curriculum in Agricultural Science

Students who expect to do graduate work in preparation for teaching agricultural science in colleges and universities, or for research work in experiment stations, or for other work in specialized fields of basic agricultural science, should register for the Curriculum in Agricultural Science. Only those students who have a high-school record above the average and who are capable of maintaining a scholarship average of B or above should follow this curriculum. Success in graduate work will depend upon better-than-average undergraduate scholarship, and such undergraduate work must include adequate preparation in biology, mathematics, English, and foreign languages. The degree of Bachelor of Science is conferred upon the satisfactory completion of this curriculum.

### The Combined Degree: A. B., and B. S. in Agriculture

Students who desire a broader training than that furnished in the curriculum leading to the degree of Bachelor of Science in Agriculture are reminded that, by proper arrangement of their courses, they may obtain both

degrees in five years. Such students normally will take first the degree of Bachelor of Arts in the College of Arts and Sciences, usually with major work in the field of biology. For particulars, see the *Announcements* of the College of Arts and Sciences.

### The Two-year Curriculum Leading to the Certificate in Agriculture

Students who may wish to acquire technical training in the field of scientific agriculture, but who do not care to meet all the requirements for the degree of Bachelor of Science in Agriculture, may register for the two-year curriculum leading to the Certificate in Agriculture. Requirements for entrance are the same as for the four-year course, namely, a high-school diploma. The first year's work is designed to give the student basic studies in some of the principal fields of Agriculture. The second year's work is more flexible, allowing the student to specialize in some field of Agriculture if he so desires.

Seventy hours of work are required, this work to include 6 hours of English, 2 hours of physical education, and 6 hours of military science (if not exempted). At least 45 hours of credit must be taken in the College of Agriculture. Students in this curriculum can complete this course without regard to honor points; however, no credit can be transferred to the four-year course unless the grade in each course is C or above.

## REQUIREMENTS FOR THE DEGREE

### Credits Required

The degree of Bachelor of Science in Agriculture may be conferred upon any student who satisfies the entrance requirements and offers 144 hours' approved credit for college courses, including all requirements set forth below.

The "semester hour" is the standard for computing the amount of work required for graduation. The "hour" represents the amount of work done in one semester (18 weeks) in one recitation with two preparation hours a week, or in three hours' practice or laboratory work requiring no outside preparation.

No student is permitted to register for less than 14 hours or more than 20 hours of work in any one semester without special permission.

### Required and Elective Subjects

All the courses for the first two years, and most of the courses for the third year, are definitely required for all students (except majors in vocational agriculture and in dairy manufactures). These courses are shown in the Basic Curriculum. Students who are not required to take military science must substitute elective credits. Agriculture 5, required of students deficient in farm practice, must be completed before the third year. First-year English (English 1 and 2 or their equivalent) must be completed before any upper-division courses may be pursued for credit towards the degree.

The fourth-year college student who wishes a general education in the field of Agriculture, leading toward the bachelor's degree, is directed to the General Curriculum in Agriculture. This course is broad enough to prepare the student to serve as a county agent or in related extension work.

For those who desire more specialized training, four courses are open—animal industry, plant industry, dairy manufactures, and vocational agriculture. The vocational-agriculture course is the only curriculum which qualifies a student to obtain a teacher's certificate.

After requirements have been met, electives may be chosen, without restriction as to college or department, with the approval of the adviser or the Committee on Courses and Hours. However, the required and elective hours taken in the College of Agriculture must amount to at least 60 hours. Provision is made for upper-division students who may wish to elect certain lower-division subjects such as languages.

Students who expect to pursue graduate work in Agriculture are advised to matriculate in the Agricultural Science curriculum for their undergraduate courses. This curriculum requires that a minimum of 45 hours be taken in the College of Agriculture in at least five subject-matter divisions.

The Dean of the College of Agriculture will act as adviser for all agricultural students and will assign students to other advisers whom he may designate.

### ELECTIVES

Elective work to make up the total required for graduation may be chosen from courses in the College of Agriculture or in other colleges of the University with the consent of the adviser or of the Committee on Courses and Hours. Ordinarily little restriction is placed on the choice of such electives.

Students who offer credit from other institutions shall have their offerings evaluated by the Committee on Courses and Hours, which shall have discretionary powers in the acceptance or refusal of credit to count toward graduation from the College of Agriculture.

## THE BASIC CURRICULUM

### FIRST YEAR

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| English 1 | 3 | English 2 | 3 |
| Chemistry 3 | 4 | Chemistry 4 | 4 |
| Biology 1 | 4 | Botany 4 | 4 |
| Agriculture 1 | 2 | Farm Mech. 2 | 2 |
| Geology 1 | 3 | Poultry 1 | 4 |
| Phys. educ.[1] | 1 | Phys. educ.[1] | 1 |
| Mil. Sci. 1 | 1 | Mil. Sci. 2 | 1 |
| | 18 | | 19 |

### SECOND YEAR

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Chemistry 31[2] | 4 | An. Husb. 1 | 3 |
| Bact. 141 | 4 | Horticulture 1 | 4 |
| Dairy Husb. 1 | 5 | Entomology 2 | 4 |
| Agronomy 1 | 4 | Agronomy 2 | 3 |
| Mil. Sci. 3 | 2 | Zoology 3 | 4 |
| | | Mil. Sci. 4 | 2 |
| | 19 | | 20 |

### THIRD YEAR[3]

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Hort. 102 | 4 | Agr. Econ. 102 | 3 |
| An. Husb. 102 | 5 | Physics 2 & 4 | 4 |
| Economics 1 | 3 | Electives | 11 |
| Physics 1 & 3 | 4 | | |
| | 16 | | 18 |

### FOURTH YEAR

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Agr. 271 | 2 | Electives | 16 |
| Electives | 18 | | |

[1]Only 2 hours in the service program accepted toward graduation.
[2]Chemistry 136 (6 hrs.) or 233 (5 hrs.) may be substituted.
[3]In addition to the courses listed above, 2 hours in farm practice must be earned by students with insufficient farm experience. This requirement must be met before the beginning of the junior year (See Agriculture 5).

## THE GENERAL CURRICULUM IN AGRICULTURE

**(following the Basic Curriculum)**

### REQUIRED COURSES

| *Subject* | *Hrs.* | *Subject* | *Hrs.* |
|---|---|---|---|
| Forestry 180 | 2 | Animal Pathology 102 | 3 |
| Agr. Economics 104 | 3 | Plant Pathology 103 | 3 |

### ELECTIVE COURSES

| *Subject* | *Hrs.* | *Subject* | *Hrs.* | *Subject* | *Hrs.* | *Subject* | *Hrs.* |
|---|---|---|---|---|---|---|---|
| Rural Org. 134 | 2 | Poultry 103 | 2-3 | Hort. 206 | 2-3 | Agr. Econ. 107 | 2 |
| An. Husb. 167 | 2 | An. Path. 206 | 3 | Hort. 139 | 2 | Agr. Econ. 131 | 3 |
| An. Husb. 162 | 3 | Agron. 210 | 3 | Hort. 212 | 2-3 | Econ. Ent. 103 | 3 |
| An. Husb. 222 | 3 | Agron. 200 | 2-3 | Dairy Husb. 222 | 4 | Genetics 111 | 2-3 |
| An. Husb. 138 | 2 | Agron. 205 | 2 | Dairy Husb. 107 | 2 | Pub. Spk. 11 | 3 |
| | | | | D'y Husb. 123 | 1-2 | Plt. Path. 202 | 5 |

## THE CURRICULUM FOR MAJORS IN ANIMAL INDUSTRY

**(following the Basic Curriculum)**

### REQUIRED COURSES

**(for majors in Animal, Poultry, and Dairy Husbandry)**

| | *Hrs.* | | *Hrs.* |
|---|---|---|---|
| Animal Husbandry 203 | 3 | Genetics 111[4] | 2 |
| Animal Pathology 102 | 3 | Agr. Economics 104 | 3 |

### SUGGESTED ELECTIVES

**(for Animal or Poultry Husbandry majors)**

| *Subject* | *Hrs.* | *Subject* | *Hrs.* | *Subject* | *Hrs.* | *Subject* | *Hrs.* |
|---|---|---|---|---|---|---|---|
| An. Husb. 162 | 3 | An. Husb. 143 | 2 | An. Husb. 138 | 2 | An. Husb. 222 | 3 |
| *(or)* | | *(or)* | | An. Husb. 167 | 3 | An. Path. 206 | 3 |
| Poult. Husb. 103 | 2 | Poult. Husb. 105 | 2 | An. Husb. 169 | 1 | Genetics 221 | 3 |
| Pub. Spkg. 11 | 3 | | | | | | |

### SUGGESTED ELECTIVES

**(for Dairy Husbandry majors)**

| | *Hrs.* | | *Hrs.* |
|---|---|---|---|
| Dairy Husbandry 123 | 1 or 2 | Dairy Husbandry 107 | 2 or 3 |
| Dairy Husbandry 221 | 3 | Public Speaking 11 | 3 |
| Dairy Husbandry 222 | 4 | | |

## THE CURRICULUM FOR MAJORS IN PLANT INDUSTRY

**(following the Basic Curriculum)**

### REQUIRED COURSES

**(for both Agronomy and Horticulture majors)**

| *Subject* | *Hrs.* | *Subject* | *Hrs.* | *Subject* | *Hrs.* |
|---|---|---|---|---|---|
| Genetics 221 | 3 | Agronomy 210 | 3 | Agr. Econ. 104 | 3 |
| Plant Physiology 221 | 4 | Plant Pathology 103 | 3 | Forestry 180 | 2 |

**(Additional for Agronomy majors)**

Math. 3 — 4 Hrs.; Math. 4 — 2 Hrs.; Agron. 200 — 3 Hrs.

[4]Substitute Genetics 221 if possible.

**(Additional for Horticulture majors)**

Hort. 206 — 3 Hrs.; Hort. 212 or 232 — 3 Hrs.; Hort. 213 — 3 Hrs.; Hort. 209 or 233 — 3 Hrs.

### ELECTIVE COURSES

**(in Agronomy)**

| *Subject* | *Hrs.* | *Subject* | *Hrs.* | *Subject* | *Hrs.* |
|---|---|---|---|---|---|
| Genetics 220 | 3 | Chemistry 106 | 4 | Agronomy 316 | 3 |
| Genetics 222 | 3 | Agronomy 215 | 3 | Agronomy 314 | 3 |
| Botany 130 | 4 | Agronomy 205 | 2 | | |

**(in Horticulture)**

Horticulture 139 — 2 Hrs.; Horticulture 140 — 2 Hrs.

**(in either course)**

Chemistry 139 — 4 Hrs.; Chemistry 106 — 3-5 Hrs.

## THE CURRICULUM FOR MAJORS IN DAIRY MANUFACTURES

**(following the Basic Curriculum)**

The curriculum given below is suggestive as regards subjects and may be varied by the class adviser to meet the needs of individual students, but the curriculum indicates the subjects which are usually advised for students who desire to take major work in dairy manufacturing.

| THIRD YEAR | | | | FOURTH YEAR | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| D'y Husb. 218* | 3 | Agr. Econ. 102 | 3 | An. Husb. 102 | 5 | D'y Husb. 104† | 3 |
| D'y Husb. 107 | 3 | Physics 2 & 4 | 4 | *(or)* | | *(or)* | |
| *(or)* | | D'y Husb. 102* | 3 | D'y Husb. 218* | 3 | D'y Husb. 102* | 3 |
| An. Husb. 102 | 5 | *(or)* | | *(and)* | | D'y Husb. 204 | 4 |
| Hort. 102 | 5 | D'y Husb. 104† | 3 | D'y Husb. 107 | 3 | D'y Husb. 222 | 4 |
| *(or)* | | Agr. Econ. 160* | 2 | D'y Husb. 103† | 3 | D'y Husb. 246* | 3 |
| D'y Husb. 103† | 3 | *(or)* | | *(or)* | | *(or)* | |
| *(and)* | | D'y Husb. 246* | 3 | Hort. 102 | 5 | Agr. Econ. 160* | 2 |
| Agr. Econ. 235 | 2 | Electives | 5 or 6 | Agr. Econ. 131 | 3 | Electives | 4 or 5 |
| Economics 1 | 3 | | | Electives | 2 or 4 | | |
| Physics 1 & 2 | 4 | | | | | | |
| | 18 | | 18 | | 18 | | 18 |

### SUGGESTED ELECTIVES

Mathematics 2 or 3; Economics 212 and 213; Business Administration 141 and 142; Chemistry 6 or 106.

## THE CURRICULUM FOR TEACHERS OF VOCATIONAL AGRICULTURE[5]

The State Board of Education has set up definite requirements applicable to all college graduates desiring to teach in West Virginia high schools. These

*Offered in alternate years; not available in 1945-46.
†Offered in alternate years.
[5]For a list of subjects required to teach non-vocational agriculture, see the bulletin, *Regulations Governing Teacher Selection, Guidance, Training, and Certification.*

requirements specify the kind and number of various sciences and agricultural courses as well as courses in professional education subjects, all of which are necessary to qualify graduates for certification. The following curriculum, which embodies such courses required for certification, is designed to prepare the qualifying student for a teaching career in the specialized field of vocational agriculture, with provision for teaching biology as a second subject. It also satisfies the requirements for the B. S. Agr. degree.

To meet state requirements for teaching vocational agriculture a total of 50 hours in agriculture is required as provided in the following curriculum.

The complete statement of the requirements for certification to teach subjects related to agriculture will be found in the announcements of the College of Education.

| THIRD YEAR | | | | FOURTH YEAR | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| An. Husb. 102 | 5 | Agr. Econ. 102 | 3 | Plant or Animal | | Educ. | 2 |
| Hort. 102 | 4 | Rural Org. 118 | 2 | Pathology | 3 | Educ. 214 | 2 |
| Econ. 1 | 3 | Agr. Mech. 153 | 3 | Social Sci. | 3 | Educ. 120 | 2 |
| Farm Mech. 152 | 2 | Education | 2 | Education 160 | 3 | Educ. 224 | 4 |
| Educ. 106 | 3 | English | 3 | Agr. Econ. 104 | 3 | Pub. Spkg. 11 | 3 |
| | | Hist., political sci., or geog. | 3 | Phys. Ed. 180 | 2 | Electives | 3 |
| | | Educ. 109 | 2 | Electives | 4 | | |
| | 17 | | 18 | | 18 | | 16 |

## THE CURRICULUM IN AGRICULTURAL MECHANICS

This curriculum is intended for teachers of vocational agriculture who choose agricultural mechanics as a teaching field. If the fifth year is taken, the student can obtain his master's degree in some agricultural field. Otherwise, eight hours must be taken in the summer to complete the teaching requirements. This curriculum fulfills the requirements to teach industrial arts or general shop in the high school.

| THIRD YEAR | | | | FOURTH YEAR | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Hort. 102 | 4 | Agr. Econ. 102 | 3 | Plant or animal | | Math. 10 | 3 |
| An. Husb. 102 | 5 | Mech. Eng'g. | | pathology | 3 | Educ. 160 | 3 |
| Economics 1 | 3 | 20 | 3 | Agr. Econ. 104 | 3 | Educ. 120 | 2 |
| Education 106 | 3 | Pub. Spk. 11 | 3 | Social science | 3 | Educ. 214 | 2 |
| English | 3 | Math. 2 | 3 | Agr. Mech. 170 | 3 | Educ. 224 | 4 |
| Health Ed. 180 | 2 | Education 109 | 2 | Education | 2 | Mech. Eng'g. 12 | 1 |
| | | Agr. Mech. 153 | 3 | Mech. Eng'g. 24 | 2 | Mech. Eng'g. 7 | 1 |
| | | Social science | 3 | Mech Eng'g. 11 | 2 | Mech. Eng'g. 4 | 2 |
| | | | | Mech. Eng'g. 6 | 1 | Agriculture 270 | 1 |
| | 20 | | 20 | | 19 | | 19 |

### FIFTH YEAR

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Agricultural Mechanics 252 | 3 | Agricultural Mechanics 253 | 3 |
| Electives | 12 | Education 294 | 2 |
| | | Electives | 10 |
| | 15 | | 15 |

## THE BASIC CURRICULUM IN AGRICULTURAL SCIENCE

### FIRST YEAR

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| English 1 | 3 | English 2 | 3 |
| Chemistry 3 | 4 | Chemistry 4 | 4 |
| Biology 1 | 4 | Botany 4 | 4 |
| Agriculture 1 | 2 | Math. 3 or 4 | 4 or 2 |
| Math. 2 or 3 | 3 or 4 | Geology 1 | 3 |
| Mil. Sci. 1 | 1 | Mil. Sci. 2 | 1 |
| Phys. educ. | 1 | Phys. educ. | 1 |
| | 18 or 19 | | 18 or 20 |

### SECOND YEAR

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Organic Chem. | 4 | Quantitative Chem. | 3 |
| Bacter. 141 | 4 | Zoology 3 | 4 |
| Math. 4 (if not taken earlier) | 2 | Economics 1 | 3 |
| English 13 | 2 | Public Spk. 11 | 3 |
| Mil. Sci. | 2 | Mil. Sci. | 2 |
| Elective in major field | 4 to 6 | Electives in major field | 3 to 5 |
| | 18 to 20 | | 18 to 20 |

### THIRD YEAR

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Physics 1 & 3 | 4 | Physics 3 & 4 | 4 |
| *German, French, or Spanish | 3 | *German, French, or Spanish | 3 |
| Electives | 11 to 13 | Electives | 11 to 13 |
| | 18 to 20 | | 18 to 20 |

### FOURTH YEAR

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Electives | 18 | Electives | 18 |

## COURSES OF INSTRUCTION IN AGRICULTURE

### Agriculture

DEAN ORTON and STAFF in AGRICULTURE

#### Undergraduate Division

1. **Introduction to Agriculture.** I. 2 Hrs. A survey of the history and practice of the general field of agriculture with special reference to opportunities and problems in West Virginia.
Mr. Parsons, Mr. Gaar, and Staff in Agriculture

5. **Summer Practice.** No Hrs. A minimum of 12 weeks on an approved farm will be required of each candidate for the degree of Bachelor of Science in Agriculture who has not had the equivalent of at least one year's farm experience after reaching the age of 14 years. Must be done under the direction of the Dean and the Committee on Farm Practice and must be completed before the third year. Open only to students deficient in farm practice.

270. **Senior Seminar in Agriculture.** II. 1 Hr. Current problems and plans in agriculture. Mr. Orton and Staff

271. **Agricultural Problems and Organizations.** II. 2 Hrs. Staff members of Agriculture and Federal agencies.

280, 281. **Special Topics.** I and II. 2 or 3 Hrs. per semester. Special work may be provided in each of the departments for students having the needed qualifications. The consent of the respective department head is required. Departmental Staffs

*Take in Junior or Senior year.

NOTE:

Students must take 45 hours in the College of Agriculture in at least five subject-matter divisions.

A student may vary from the above curriculum with the approval of his adviser and of the Committee on Courses and Hours.

The student's adviser should be in the field of the student's major.

### Graduate Division

**380, 381, 382, 383. Research.** I and II. 1 to 6 Hrs. per semester. (See description under this number in each department.) Work for the degree of Master of Science consists chiefly of course offerings and no more than 6 credit hours of research, with special emphasis on a major subject to be selected from one of the several departments. Work for the degree of Doctor of Philosophy is limited to a few selected fields and will consist of research as well as the required course work.
Departmental Staffs

## Agricultural Biochemistry

Professor DUSTMAN

Chemistry courses for agricultural and home economics students of undergraduate rank are offered in the College of Arts and Sciences (see Chemistry). Graduate work may be pursued under the general research course outlined under Agriculture, above.

**280, 281. Special Topics.** I and II. 2 or 3 Hrs. per semester. Staff

**380, 381, 382, 383. Research.** I and II. 1 to 6 Hrs. per semester. Staff

### CHEMISTRY

**31, 131. Organic Chemistry.** I. 4 Hrs. For students in agriculture and home economics. Chemistry 9 may accompany this course. PR: Chemistry 4, or 2 and 9. Mr. Dustman

**218. Dairy Chemistry.** I. 3 Hrs. Offered in 1944-45 and alternate years. PR for graduate students: Chemistry 106 or equivalent, Chemistry 31 or 233, and Dairy Husbandry 1; for undergraduates, Chem. 31.
Mr. Dustman

**220. Chemistry of Animal Nutrition.** II. Offered in alternate years. PR: Chemistry 6 and 31 and Biochemistry 239, or their equivalents.

NOTE: For description of the course in general biochemistry see the Announcements of the School of Medicine.

## Agricultural Economics

Professor ARMENTROUT; Associate Professors CORNELL and ABRAHAMSEN

### Undergraduate Division

**2, 102. Farm Economics.** II. 3 Hrs. Principles of economics as applied to agriculture. Mr. Armentrout or Mr. Cornell

**104. Farm Management.** I. 3 Hrs. Principles of choosing, equipping, and operating a farm. Mr. Cornell

**107. Farm Records and Accounts.** II. 2 Hrs. Mr. Armentrout or Mr. Cornell

**131. Marketing Agricultural Products.** I. 3 Hrs. Principles and practices of marketing products. Mr. Abrahamsen

**160. Dairy Accounting.** II. 2 Hrs. A system of accounts which has been designated especially for the use of medium-sized dairy manufacturing plants. Offered in 1944-45 and alternate years.
Mr. Armentrout or Mr. Cornell

**230. Cooperative Marketing.** I. 2 Hrs. Principles and practices of cooperative marketing as applied to the marketing of agricultural products and the purchase of farm supplies. Mr. Abrahamsen

**235. Marketing Dairy Products.** I. 2 Hrs. Milk-marketing practices and policies. Mr. Abrahamsen

**250. Agricultural Statistics.** I. 3 Hrs. Sources and methods of collecting and analyzing agricultural statistics; construction of statistical tables, charts, graphs, etc. Mr. Cornell

**280, 281. Special Topics.** I and II. 2 or 3 Hrs. per semester. Staff

#### Graduate Division

**340. Advanced Farm Management.** I. 3 Hrs. Mr. Cornell

**341. Production Economics.** II. 3 Hrs. Advanced study of economic principles of production with special application to agriculture.
Mr. Armentrout or Mr. Cornell

**342. Advanced Agricultural Economics.** II. 3 Hrs.
Mr. Armentrout or Mr. Cornell

**380, 381, 382, 383. Research.** I and II. 1 to 6 Hrs. per semester. Staff

## Agronomy and Genetics

Professor POHLMAN; Associate Professors CARTLEDGE, TYNER, and VEATCH; Instructor BROADFOOT

### AGRONOMY

#### Undergraduate Division

**1. Farm Crops.** I. 4 Hrs. Cereal, forage, and pasture crops. PR: Botany 2.
Mr. _____

**2, 102. Soils.** II. 3 Hrs. The properties of soils. PR: Geology 4 and Chemistry 31. Mr. Pohlman

**10. Forest Soils.** I. 3 Hrs. Properties of soils in relation to forestry. PR: Geology 1 and Chemistry 4. Mr. Pohlman

**200. Advanced Crops.** II. 2 or 3 Hrs. Production, classification, and market grading with particular emphasis on forage crops. PR: Agronomy 1.
Mr. _____

**205. Soil Conservation.** I. 2 or 3 Hrs. Causes of soil erosion and methods for its control. One or two half-day field trips will be made during the semester. PR: Agronomy 2 or 10. Mr. Tyner.

**210. Fertilizers and Soil Fertility.** II. 3 Hrs. Soil fertility; theories and practices in use of fertilizer. PR: Agronomy 2. Mr. Pohlman

**215. Development and Classification of Soils.** I. 3 Hrs. Morphology, genesis and classification of soils. Soil survey methods, mapping of an assigned area, and characteristics of some important soil series of West Virginia and the United States. PR: Agronomy 2 or 10. Mr. Tyner

**280, 281. Special Topics.** I, II. 2 to 4 Hrs. per semester. Staff

#### Graduate Division

**316. Soil Chemistry.** II. 3 Hrs. Fundamental chemical properties of soils in relation to plant growth; nature and properties of soil colloids; base exchange and soil acidity; availability of plant food elements and soil-plant interrelationships. Offered in 1945-46 and in alternate years.
Mr. Tyner

**350, 351. Seminar.** I and II. 1 Hr. per semester. Recent literature pertaining to soils and crop production. Staff

**380, 381, 382, 383. Research.** I and II. 1 to 6 Hrs. per semester. Staff

### BACTERIOLOGY

**314. Soil Microbiology.** II. 3 Hrs. Occurrence of micro-organisms in soils and their relationship to decomposition of organic matter, availability of plant nutrients, and soil acidity; technique of isolation and study. Offered in 1945-46 and in alternate years. Mr. Pohlman and Mr._____

### GENETICS

#### Undergraduate Division

**11, 111. Elementary Genetics.** I, II. 2 Hrs. Elementary study of the principles of Heredity. Mr. Cartledge

**112. Genetics Laboratory.** I, II. 1 Hr. Breeding experiments. Mr. Cartledge

**220. Crop Breeding.** II. 3 Hrs. Methods and basic scientific principles involved in the improvement of leading cereal and forage crops through hybridization and selection. PR: Genetics 111 or 221. Mr._____

**221. Genetics.** I. 3 Hrs. Fundamental principles of inheritance. Mr. Cartledge

**222. Advanced Genetics.** II. 3 Hrs. PR: Genetics 221. Mr. Cartledge

**250, 251. Seminar.** I and II. 1 Hr. per semester. Recent literature pertaining to breeding, genetics, and cytology. Staff

**280, 281. Special Topics.** I and II. 2 to 3 Hrs. per semester Staff

#### Graduate Division

**332. Biometry.** II. 3 Hrs. Statistical analysis of biological data. Offered in 1945-46 and alternate years. Mr._____

**380, 381, 382, 383. Research.** I and II. 1 to 6 Hrs. per semester Staff

## Animal Husbandry

Professors LIVESAY and RIETZ; Associate Professors HYRE, SCHNEIDER, and WILSON; Instructors BLACK and RUNNELS

### ANIMAL HUSBANDRY

#### Undergraduate Division

**1. Animal Nutrition.*** II. 3 Hrs. Digestion and metabolism of food nutrients, nutrient requirements of farm animals, and nutritive values of feeds and rations. PR: Chemistry 31. Mr. Schneider

**102. Livestock Production and Management.*** I. 5 Hrs. Market types, breeds, production, and management of beef cattle, hogs, and horses. Mr. Livesay and Mr. Black

**138. Livestock Grading and Selection.** II. 2 Hrs. Mr. Black

**143. Advanced Livestock Judging.** I. 2 Hrs. Students taking this course will be required to participate in a tour of inspection of representative flocks, herds, and studs. Staff

*Animal Husbandry 1 and 102 are prerequisite to all courses in the department, including animal pathology courses.

**162. Mutton and Wool Production.** II. 3 Hrs. Mr. Wilson

**166. Meats.** II. 2 Hrs. Lectures and demonstrations on the identification, selection, and nutritive value of meat cuts. Primarily for home economics students. Mr. Black

**167. Meats.** I. 2 Hrs. Farm butchering, curing, and care of meats. Visit to one of the large packing houses of Pittsburgh required of all students taking this course. Mr. Black

**169. Meat Judging.** I. 1 Hr. Mr. Black

**203. Advanced Animal Nutrition.** I. 3 Hrs. The chemistry of feeding stuffs and of the animal body, as well as of the digestion and metabolism of food nutrients. Mr. Schneider

**222. Breeding Farm Animals.** II. 3 Hrs. Physiology of reproduction; inheritance; selection, care, and management of breeding animals. PR: Genetics 111 or 221. Mr. Livesay

**235, 236. Current Literature.** I and II. 1 Hr. per semester. Staff

**280, 281. Special Topics.** I, II, S. 2 or 3 Hrs. per semester. Advanced studies in various phases of animal husbandry or poultry husbandry; animal genetics; energy metabolism; protein metabolism; vitamin studies; parasitology. Staff

#### Graduate Division

**370. Methods of Animal Husbandry Research.** I, II, S. 3 Hrs. A study of research methods which are being used in conducting experimental work in animal husbandry. Staff

**380, 381, 382, 383. Research.** I and II. 1 to 6 Hrs. per semester. Available to students in all divisions of Animal Husbandry. Staff

### ANIMAL PATHOLOGY

**102. Animal Pathology.** II. 3 Hrs. PR: General zoology. Mr. Rietz

**206. Parasites and Pathology.** I. 3 Hrs. PR: Invertebrate zoology; for non-agricultural students, consent of instructor. Mr. Rietz

### POULTRY HUSBANDRY

**1. Poultry Husbandry.** II. 4 Hrs. Prerequisite to all other poultry courses. Messrs. Hyre and Runnels

**103. Poultry Management.** I. 2 Hrs. Factors in poultry production and management as related to scientific investigations. Mr. Hyre

**105. Poultry Judging.** I. 2 Hrs. Practice in the selection of birds for both standard and production qualities. Mr. Hyre

**108. Poultry Nutrition.** II. 2 Hrs. Application of scientific principles to practical poultry feeding. PR: An. Husb. 1 and Poultry Husbandry 1. Messrs. Hyre and Runnels

## Dairy Husbandry

Professor HENDERSON; Associate Professor BOWLING; Assistant Professor .....; Instructor .....

#### Undergraduate Division

**1. Principles of Dairying.** I. 5 Hrs. Prerequisite to all other courses in the department except Dairy Husbandry 107. Mr. Henderson and Mr. .....

**102. Ice Cream and Refrigeration.** II. 3 Hrs. Offered in 1946-47 and alternate years. Manufacture of ice cream; principles of refrigeration involved in the manufacture and storage of dairy products. Mr. .....

**103. Market Milk.** I. 3 Hrs. Offered in 1945-46 and alternate years. Market milk and the manufacture of dry and condensed milk. Mr. .....

**104. Butter and Cheese.** II. 3 Hrs. Offered in 1945-46 and alternate years. Manufacture of butter and various types of cheese. Mr. .....

**107. Milk and Public Health.** I. 2 or 3 Hrs. Mr. Henderson and Mr. .....

**123. Dairy Judging.** II. 1 or 2 Hrs. Mr. Bowling and Mr. .....

**204. Dairy Technology.** II. 4 Hrs. Chemical and bacteriological methods used in the technical control of milk and milk products. Mr. .....

**221. Dairy Cattle.** I. 3 Hrs. History of breeds and families of registered dairy cattle. Organization and activities of breed associations. Mr. Bowling

**222. Milk production.** II. 4 Hrs. Feeding and management of dairy cattle. Mr. Henderson

**280, 281. Special Topics.** I and II. 2 or 3 Hrs. per semester. Staff

**Graduate Division**

**380, 381, 382, 383. Research.** I and II. 1 to 6 Hrs. per semester. Staff

BACTERIOLOGY

**246. Dairy Bacteriology.** II. 3 Hrs. See under "Bacteriology," page 100.

CHEMISTRY

**218. Dairy Chemistry.** I. 3 Hrs. See under "Chemistry," page 94.

## Entomology

Professor PEAIRS

**2, 102. Entomology.** II. 4 Hrs. Biological, morphological, taxonomic, and economic phases of the study of insects. PR: Invertebrate zoology. Mr. Peairs

**103. Economic Entomology.** I. 2 Hrs. Standard practices in insect control; methods for study of injurious insects. Professional requirements in entomology. PR: Ent. 2 or equivalent. Mr. Peairs

**152. Forest Entomology.** I. 4 or 2 Hrs. Insects of importance to the forester; recognition and control of insect pests in the forest. Students who have credit for Entomology 2 (102) may receive only two hours' credit for this course. Mr. Peairs

**201. Survey of Applied Entomology.** I. 3 to 5 Hrs. Principles underlying the control of insects; cultural, biological, and chemical. Practice in biological and control investigations. Prerequisite for graduate credit: 20 hours in the field of biology. Not open to students who have credit in Ent. 102. Mr. Peairs

**204, 205. Taxonomy.** I, II, S. 2 or 3 Hrs. per semester. Studies in the families and genera of insects of the region; detailed studies in restricted groups for qualified students. Mr. Peairs

**280, 281. Special Topics.** I, II, S. 2 or 3 Hrs. per semester. Advanced studies in the field of interest of the student. The following are available: life history studies; response of insects to climatic variables; insect toxicology; injurious insects. Mr. Peairs

#### Graduate Division

**370. Mehods of Entomological Research.** I, II. 3 Hrs. A study of methods which have been proposed and used for the solution of problems arising in the study of insect biology. Mr. Peairs

**380, 381, 382, 383. Research.** I and II. 1 to 6 Hrs. per semester. Staff

## Horticulture

Professor MARSH; Associate Professors SUDDS and WESTOVER; Assistant Professor DYE; Instructor NEAL

#### Undergraduate Division

**1. Principles of Horticulture.** II. 4 Hrs. Vegetable production. Prerequisite to all courses in olericulture. Mr. Westover and Staff

**102. Principles of Horticulture.** I. 4 Hrs. Fruit production and ornamental horticulture. Prerequisite to all courses in pomology. Mr. Marsh and Mr. Childs

**115. Judging and Identification of Apple Varieties.** I. 1 Hr. Two laboratory periods first half of semester. Mr. Childs

**139. Landscape Gardening.** I. 2 Hrs. Theory and practice of landscape design with special application to home grounds. Mr. Dye

**140. Plant Materials.** II. 2 Hrs. Important woody and herbaceous plants used in landscape gardening. Mr. Dye

**206. Small-fruits Production.** II. 2 or 3 Hrs. A practical and scientific study of standard cultural practices in the small-fruit plantation. Mr. Childs

**209. Systematic Pomology.** I. 3 Hrs. History, botany, and classification of fruits. Offered in 1945-46 and alternate years. Mr. Marsh and Mr. Neal

**212. Commercial Tree-fruit Production.** II. 2 or 3 Hrs. Latest methods in pruning, spraying, soil culture, and other production practices for fruit trees from the practical and scientific standpoint. Mr. Sudds

**213. Harvesting, Packing, and Storage of Fruits.** I. 3 Hrs. Instruction in maturity standards for harvesting, grading according to national and state standards, and planning and management of packing houses and storages. Mr. Marsh and Mr. Childs

**232. Commercial Vegetable Production.** II. 2 Hrs. Current methods of commercial vegetable crop production, including equipment, soil and climatic adaptation, plant raising, soil culture, harvesting, grading, and packing. Mr. Westover and Staff

**233. Systematic Olericulture.** I. 3 Hrs. History, botany, and classification of vegetable crops. Offered in 1944-45 and alternate years. Mr. Westover and Staff

**280, 281. Special Topics.** I and II. 2 or 3 Hrs. per semester. Staff

#### Graduate Division

**380, 381, 382, 383. Research.** I and II. 1 to 6 Hrs. per semester. Staff

## Plant Pathology and Bacteriology

Professors LEACH and LEONIAN; Associate Professors ..... and TAYLOR; Assistant Professor CLULO

### BACTERIOLOGY

#### Undergraduate Division

**41, 141. General Bacteriology.** I, II. 4 Hrs. (3 Hrs. for Engineering students). PR: Chemistry 1 or 2. Mr. Leach and Staff

**246. Dairy Bacteriology.** II. 3 Hrs. The role of micro-organisms in market milk, in the manufacture of butter, cheese, and fermented milk, and in milk hygiene; practice in the preparation of media; making bacterial counts in milk. PR: Bacteriology 141. Offered in 1944-45 and alternate years.

**248. Bacteriological Water Analysis.** II. 2 Hrs. Standard bacteriological methods used in the routine examination of water and sewage. PR: Bacteriology 141. Offered in 1945-46 and alternate years.

**280, 281. Special Topics.** I and II. 2 to 3 Hrs. per semester. Staff

#### Graduate Division

**314. Soil Microbiology.** II. 3 Hrs. Occurrence of micro-organisms in soils and their relationship to decomposition of organic matter, availability of plant nutrients, and soil acidity; technique of isolation and study. Offered in 1945-46 and alternate years. Mr..... and Mr. Pohlman

### BIOLOGY

#### Undergraduate Division

**210. Cytology.** I. 4 Hrs. The fundamentals of cell structure and inclusions in plants and animals with special attention to nuclear divisions. Mr. Leach and Miss Clulo

**280, 281. Special Topics.** I, II. 2 to 3 Hrs. per semester. Mr. .....

### PLANT PATHOLOGY

#### Undergraduate Division

**103. Economic Plant Pathology.** I. 3 Hrs. The important diseases of field, garden, and orchard crops; their causes and methods of control. Mr. Leach and Mr. Taylor

**153. Forest Pathology.** II. 4 Hrs. The important diseases of forest and shade trees; their causes and methods of control. PR: Botany 2. Mr. Leach and Miss Clulo.

**202. General Plant Pathology.** II. 5 Hrs. Nature of diseases in plants, with practice in laboratory methods. PR: Bacteriology 141. Mr. Leach, Miss Clulo, and Staff

**212. Pathological Anatomy.** I. 3 Hrs. A study of the abnormal tissue changes in plants. Offered in 1944-45 and alternate years. Mr. Leach and Miss Clulo

**213. Insect Transmission of Plant Diseases.** I. 3 Hrs. The role of insects in the spread and development of plant diseases and the relationship of insects to plant-disease control. PR: Plant Pathology 103 or Entomology 102. Offered in 1945-46 and alternate years. Mr. Leach

**280, 281. Special Topics.** I, II. 2 to 4 Hrs. per semester. Staff

### Graduate Division

**303. Mycology.** I. 4 Hrs. Lectures, field and laboratory studies of the parasitic and saprophytic fungi. Mr. Leonian and Mr. Leach

**380, 381, 382, 383. Research.** I, II. 1 to 6 Hrs. Mr. Leach and Staff

## Rural Organization

Professor PARSONS; Associate Professor GAAR; Assistant Professor LONGHOUSE

### RURAL ORGANIZATION

**118. Organizations and Clubs for Farm Boys.** II. 2 Hrs. Problems involved in directing the activities of F.F.A., and similar organizations. Mr. Parsons or Mr. Gaar

**134. Methods of Agricultural Extension.** I. 2 Hrs. Activities of the county agricultural and home demonstration agents and of the agricultural extension program of West Virginia. Offered in 1944-45 and alternate years. Mr. Parsons

***160. Education—Materials and Methods of High-school Teaching of Vocational Agriculture.** I, II. 3 Hrs. Organization and preparation for teaching vocational agriculture in the high school. Mr. Parsons or Mr. Gaar

***224. Education.** Student Teaching in Vocational Agriculture. I, II. 4 Hrs. Mr. Parsons or Mr. Gaar

### AGRICULTURAL MECHANICS

MR. LONGHOUSE

**2. Farm Shop.** II. 2 Hrs. Instruction in woodworking, cold-metal working, forge work, sheet-iron working, shaping and tempering tools, tool-fitting, harness repair, rope work, and saw conditioning.

**152. Farm Shop.** I. 3 Hrs. The place of farm shop on the farm. Construction and repair problems including carpentry, metal working, forging, fitting tools, repairing harness, and filing saws. Not open to students who have had Farm Shop 2.

**153. Farm Machinery.** II. 3 Hrs. Principles underlying the construction, adjustment, care, and repair of farm machinery. This will include tillage, harvesting, and seeding machinery. PR: Course 2 or 152. May be taken concurrently.

**155. Household Equipment.** II. 2 Hrs. Planned to help students understand the mechanical equipment in the home and its effective use.

**159. Farm Structures.** I. 3 Hrs. Fundamental principles of farm-building construction. Actual planning, laying out, and construction work during laboratory period.

**170. Rural Electrification.** I. 3 Hrs. Fundamentals of electricity and its application in the home and on the farm. Open to Agriculture students only, or instructor's permission to register.

**252. Advanced Farm Mechanics.** I. 3 Hrs. Forging, cold-iron work, tool-fitting, woodworking; offers training for teaching shopwork in rural high schools. PR: Farm Mechanics 2 or 152.

*See the bulletin, *Regulations Governing Teacher Selection, etc.,* for additional requirements for certification to teach vocational agriculture.

**253. Advanced Farm Machinery.** II. 3 Hrs. Trends and economic use of farm machinery. Primarily for graduate vocational agriculture teachers.

PR: Farm Mechanics 153. Open to Agriculture students only or by instructor's permission.

**255. Care and Repair of Home Equipment.** II. 2 Hrs. For advanced and graduate students. Construction, maintenance, and repair of household equipment. Their comparative cost and economic use will be studied.

The following courses are recommended for Agriculture students who wish to choose additional electives in Engineering.

**M.E. 4. Pattern Making.** I. 2 Hrs. PR: M. E. 6.

**M.E. 6. Foundry.** I, II. 1 Hr.

**M.E. 7. Welding and Heat Treatment.** I, II. 1 Hr.

**M.E. 11. Machine Shop.** I, II. 2 Hrs.

**M.E. 12. Machine Shop.** I, II. 1 Hr.

**M.E. 20. Mechanical Drawing.** I, II. 3 Hrs.

**M.E. 24. Empirical Design.** I, II. 2 Hrs. PR: M. E. 11 or 13S and M. E. 20.

### GENERAL

**280, 281. Special Problems.** I, II. 2 to 3 Hrs. per semester. PR: adequate ability and training for the work proposed and permission to register. Staff

**380, 381. Research.** I, II. 1 to 6 Hrs. per semester. Staff

## THE DIVISION OF FORESTRY

The professional forester's work includes such diversified activities as timber production, logging, surveying, park management, forest protection, forest-stand improvement, flood control, watershed protection, soil-erosion control, submarginal land development, restoration of game, stream development, and construction of public camps and summer home sites. The wide scope of the modern field of forestry demands a thorough basic training for the professional forester. This accounts for the large number of required courses in the professional forestry curriculum. If a forester wishes to specialize in any one branch of the field, graduate work is needed.

The course leading to the degree of Bachelor of Science in Forestry is designed to train the student for a professional forestry career in either public or private forestry work. Graduates should be equipped to hold positions with the U. S. Forest Service, with the Forestry Division of the U. S. Indian Service, with the Soil Conservation Service, with the National Park Service, and with other federal agencies employing professional foresters; with the various state forestry departments; and with those private forest land owners—both corporate and individual—who employ technical foresters.

The curriculum includes a two years' broad foundational study of the natural, mathematical, and social sciences basic to the field, followed in the junior and senior years by more detailed study of forestry principles and

technique. Many of the courses in the curriculum provide for field laboratories enabling the student to see first-hand applications of the principles presented in the classroom and to experiment with the various techniques he is learning.

An important part of the course is the ten weeks' forestry camp attended at the end of the sophomore year. At this camp the student is instructed in the field practice of land surveying and forest measurements and has opportunity to observe various forest operations on both public and private lands. Courses are offered also in game management and in other phases of the recreational use of public and private lands.

## The Curriculum in Professional Forestry

**FIRST YEAR**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Biol. 1 | 4 | Biol. 2 | 4 |
| Chem. 3 | 4 | Chem. 4 | 4 |
| Eng. 1 | 3 | Eng. 2 | 3 |
| For. 1 | 1 | For. 2 | 1 |
| Math. 2 | 3 | Geol. 1 | 3 |
| Mil. Sci. 1 | 1 | Math. 10 | 3 |
| Phys. educ. | 1 | Mil. Sci. 2 | 1 |
| | 17 | | 19 |

**SECOND YEAR**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Agron. 10 | 3 | Bot. 32 | 2 |
| Bot. 21 | 2 | C. E. 6 | 2 |
| C. E. 5 | 4 | For. 4 | 3 |
| Econ. 1 | 3 | For. 11 | 3 |
| For. 3 | 3 | For. 21 | 4 |
| Mil. Sci. 3 | 2 | Mil. Sci. 4 | 2 |
| | | Phys. educ. | 1 |
| | 17 | | 17 |

Forestry 100S — Junior Forestry Camp — 10 Weeks — 10 Hours

**THIRD YEAR**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Entom. 152 | 4 | For. 112 | 4 |
| For. 114 | 3 | For. 113 | 3 |
| For. 131 | 3 | For. 125 | 3 |
| For. 132 | 3 | For. 142 | 2 |
| For. 151 | 2 | For. 143 | 2 |
| Phys. 1 & 3 | 4 | Electives | 3 |
| | 19 | | 17 |

**FOURTH YEAR**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| For. 123 | 5 | For. 122 | 3 |
| For. 124 | 3 | For. 133 | 3 |
| For. 134 | 2 | For. 141 | 3 |
| For. 135 | 3 | Pl. Path. 153 | 4 |
| Electives | 4 | Electives | 4 |
| | 17 | | 17 |

Summer Employment by Forest-Using Agency

## COURSES OF INSTRUCTION IN FORESTRY

Professor PERCIVAL; Associate Professors F. W. BESLEY, L. BESLEY,* BROOKS, and ERICKSON; Assistant Professors DUGAN, HOLSOE,* and SAYERS; Instructor BYERS*

**1, 2. The Profession of Forestry.** I and II. 1 Hr. per semester. Survey of the profession of forestry and of the opportunities available to trained men. Required of all freshmen in forestry. Mr. Percival

**3. Dendrology.** I. 3 Hrs. Classification, identification, and distribution of the timber trees of the United States. PR: Biol. 2. Mr. Core

**4. Dendrology.** II. 3 Hrs. Continuation of Forestry 3. Mr. Core

**5. Land Surveying.** I. 4 Hrs. Principles and techniques of land surveying, including boundary and topographic surveys, location of roads, and computation of areas. PR: Math. 10. Mr. Baker

*On Military leave.

**6. Topographic Mapping.** II. 2 Hrs. Practice in lettering and drawing topographic maps from field data. Also mapping in the field with traverse-board outfits. PR: C. E. 5. Mr. Baker

**10. Forest Soils.** I. 3 Hrs. Soils which occur in the forest and their relationship to tree growth. PR: Geology 1 and Chemistry 4. Mr. Pohlman

**11. Silvics.** II. 3 Hrs. The forest and its environmental factors; site and type characteristics. PR: Agron. 10, Botany 21, and For. 4. Mr. Brooks

**21. Forest Mensuration.** II. 4 Hrs. Measurement of forest products, trees, and stands; timber estimating; introduction to growth and yield. PR: Civil Engineering 5. Mr. Sayers

**100s. Forestry Camp.** S, Ten weeks. 10 Hrs. Field practice in land surveying, forest measurements, and tree identification; observation of forest types, forest improvements, and utilization practices. PR: Civil Engineering 6 and Forestry 4 and 21. Mr. Besley and Staff

**112. Silviculture.** I. 4 Hrs. Silvicultural systems used for obtaining natural reproduction; intermediate cuttings; treatment of various species in different types. PR: Forestry 11. Mr. Sayers

**113. Silviculture.** II. 3 Hrs. Nursery practice; seeding and planting; all phases of artificial regeneration. PR: Forestry 11. Mr. Sayers

**114. Forest Economics.** I. 3 Hrs. The place of the forest industry in the national economy; forest resources of the United States; exports and imports of forest products; current movements within the wood-using industry as influenced by economic trends. PR: Econ. 1. Mr. Besley

**122. Forest Mensuration.** II. 3 Hrs. The measurement of growth and yield; statistical methods applied to forest measurement problems. PR: Forestry 21. Mr. Sayers

**123. Forest Management.** I. 5 Hrs. Use of practical silvicultural methods on forest tracts; the regulation of the cut in order to obtain a sustained yield; the coordination of multiple uses of the same forest; the preparation of plans for the profitable management of specific forested areas. PR: Forestry 100S and 112. Mr. Besley

**124. Forest Finance.** I. 3 Hrs. Costs of producing and harvesting the forest crop. Wood production as a business enterprise. PR: Forestry 100S and 114. Mr. Besley

**125. Forest Policy and Administration.** II. 3 Hrs. Land policy in the United States; its historical, legal, and administrative development; the forester's relations with the public. Organization of public and private forest agencies. Mr. Percival

**131. Wood Technology.** I. 3 Hrs. The structure and identification of the important woods of the United States; their physical properties and uses. PR: Forestry 4 (must be accompanied by For. 132). Mr. Erickson

**132. Wood Technology.** I. 3 Hrs. Laboratory for Forestry 131. Mr. Erickson

**133. Lumbering.** II. 3 Hrs. Logging practices and lumber manufacture. Logging and mill equipment. Important factors affecting lumber grades. PR: Forestry 100S and 131. Mr. Erickson

**134. Forest Products.** I. 2 Hrs. The production and uses of forest products other than lumber and timbers. PR: For. 131 and 132. Mr. Erickson

**135. Wood Conditioning.** I. 3 Hrs. The purposes, effects, and methods of seasoning and preserving wood. PR: Forestry 131 and 132. Mr. Erickson

**141. Game Management.** II. 3 Hrs. Basic principles of handling wild life as a forest crop. (This course is not intended to train wild-life specialists.) In recognition of the importance of fish, game animals, and fur-bearing animals in the forest, the course considers the problems of the maintenance of a maximum wild-life population. PR: Botany 32 and Biology 2. Mr. Dugan

**142. Recreational Developments.** II. 2 Hrs. Needs of the active and passive recreationist and means of supplying facilities for meeting these needs on public forests. PR: Civil Engineering 6, and For. 100S. Mr. Brooks.

**143. The Forest Range.** II. 2 Hrs. A survey of basic range management technique and practices on forest lands, with consideration of range mapping and important forage plants. PR: Civil Engineering 6 and Forestry 100S. Mr. Brooks

**144. Forest Zoology.** II. 3 Hrs. The relationships of mammals, reptiles, amphibians, and fish to the forest, with emphasis on the ecology and taxonomy of these groups. PR: Biol. 2 or Zool. 2 or Zool. 3. Mr. Brooks

**151. Forest Protection.** I. 2 Hrs. Preventive actions, preparation activities, and control of forest fires as practiced on publicly-owned forests. Mr. Percival

**152. Forest Entomology.** I. 2 or 4 Hrs. Insects of importance to the forester; recognition and control of insect pests in the forest. Students who have credit for Entomology 2 (102) may receive only two hours' credit in this course. Mr. Peairs

**153. Forest Pathology.** II. 4 Hrs. The important diseases of forest and shade trees; their causes and methods of control. PR: Biology 2 and Forestry 131 and 132. Mr. Leach

**170, 171, 172, 173. Forestry Problems.** I, II. 1 Hr. per semester. (4 Hrs. maximum.) Mr. Brooks and Staff

**180. Farm Forestry.** II. 2 Hrs. Principles of forest management and their application to the establishment, care, and utilization of the farm woods. PR: Botany 2. Professional forestry students may not take this course for credit. Mr. Dugan

**181. Farm Game.** II. 2 Hrs. Fundamental principles of the natural propagation and management of game and other wild life on the farm, with emphasis on game as a farm crop. (Primarily for students in agriculture.) Professional forestry students may not take this course for credit. Mr. Dugan

## THE DIVISION OF HOME ECONOMICS

### Instruction in Home Economics

The Division of Home Economics occupies two floors in the north end of Oglebay Hall, where may be found offices, conference rooms, and a small departmental library, in addition to classrooms and laboratories well equipped for the teaching of related arts, textiles and clothing, and foods and nutrition. Adjacent to the foods laboratories is a family-service unit consisting of a kitchen, dining room, and reception room. Additional laboratories are located outside Oglebay Hall but in close proximity, namely, the University Rural High School, the Home Management House, the Nursery School, and a Cafeteria.

The offerings in the division are designed to meet a wide variety of educational needs. One of the first aims is to help the student understand herself and her own potentialities and to encourage her to assume progressively more and more responsibility for her own development. In addition she will be given school and community laboratory experience, under guidance, to help her develop judgment in meeting situations, lead her to the belief that problems can be solved, and give her increasing confidence in her own ability to solve them.

To assist the student in setting goals and in planning experiences which will help her make progress toward these goals, a special advisory system has been set up. Each lower-division student has a faculty adviser and a student adviser. The student adviser helps her informally in adjusting to her new life as a college student. The faculty adviser counsels the student as to courses and assists in solving problems directly or indirectly affecting her progress in the university.

## Plan of Work

The work of the first two years is largely cultural, including courses in written and spoken English, literature, and natural and social sciences. In addition, basic work in four areas—foods, clothing, art, and management—acquaints the student with the field of home economics. Special courses have been arranged for the student who wishes to stay in college only two years and whose main interest is to prepare for homemaking. She may substitute homemaking courses for those in the basic sciences during the first two years. During the last two years the student is given the opportunity of specialization in one of several vocations.

## Vocations for Home Economists

West Virginia graduates are now teaching homemaking at junior high school, senior high school, and college levels; others are supervising the teaching of homemaking. Some may be found serving as home-demonstration agents, girls' club leaders, or commercial demonstrators. A considerable number are engaged in institutional work as hospital dietitians or as managers of tea rooms, cafeterias, or college dining halls. Others are engaged in scientific research or in allied work as laboratory technicians.

Social service, through either private or government agencies, has claimed the interest of a number. Nursery schools have turned to West Virginia home-economics graduates for supervisors. Department stores have offered a variety of interesting jobs in selling, counselling, interior decoration, and other phases of retailing. One or two graduates with a flair for writing have found work on women's magazines. New fields are constantly opening up, so that the person trained in home economics has an ever-widening choice of vocations.

The division endeavors to keep in touch with the various agencies which employ home-economics graduates and to assist graduates in finding employment.

## The Baccalaureate Degree in Home Economics

The Division of Home Economics offers courses leading to the granting of a B. S. and an A. B. degree in home economics.

The degree of Bachelor of Science in Home Economics will be conferred upon any student who satisfies the entrance requirements and offers 128 hours of college credit including the courses listed below. The student must receive at least as many honor points as credits in order to be eligible for graduation.*

### REQUIREMENTS FOR ALL STUDENTS WORKING TOWARD A B. S. H. E. DEGREE

**General:** Engl. rhetoric, literature, public speaking (no more than 3 hrs. in latter), 12 hrs.; chemistry, 8 hrs.; history, psychology, economics, and sociology, 9 hrs. (with some work in at least two fields); biological science, 8 hrs. (including bacteriology); physical education, 4 hrs. (Humanities 1 may be substituted for 4 hrs. modern European history; Humanities 2 may be substituted for 4 hrs. English literature.) Total, 41 hrs.

**Home Economics:** foods and nutrition, 6 hrs.; management, 5 hrs.; textiles and clothing, 5 hrs.; applied art, 4 hrs.; child development, 2 hrs.; electives in home economics, 18 hrs. Total, 40 hrs. General electives, 47 hrs. Grand total, 128 hrs.

Sufficient electives are allowed to permit the student to satisfy the requirement for a first-class high-school certificate to teach in West Virginia or to fulfill the preparatory requirements for apprenticeship, internship, or similar vocational experiences in a variety of fields including those of institutional management, hospital dietetics, food and textile research, retailing, extension work, and other governmental services.

### THE A. B. DEGREE WITH MAJOR IN HOME ECONOMICS

Students who wish to offer home economics as a major in the College of Arts and Sciences are referred to the information concerning an A. B. degree with a major in home economics. (See the General Catalogue.)

### ELECTIVES FOR STUDENTS OUTSIDE THE DIVISION

Students in other colleges wishing to elect courses in home economics will find a number of courses available. The following courses are suggested: Home Economics 1, 2, 3, 4, 13, 14, 18, 33, 50, 116, 117, 134, 138, and 190.

### CLASSIFICATION OF STUDENTS

To be classified as a conditional freshman a student must have credit for at least 15 units of entrance requirements; to be classified as a regular freshman she must have fulfilled all entrance requirements. To be classified as a sophomore she must have credit for 25 hours of college work; as a junior, 58 hours; as a senior, 92 hours.

*For a complete description of the honor point system, see page 54.

## The Suggested Curriculum for the First Two Years

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|---|---|---|---|
| English 1 | 3 | English 2 | 3 | English 3, 4, | | Pub. Spk. 3, | |
| Chem. 3* | 4 | Chem. 4 | 4 | or 5 | 3 | 6, or 11 | 3 |
| *(or)* | | History 2 | 3 | *(or)* | | Physiology 51 | 4 |
| History 1 | 3 | *(or)* | | Humanities 2 | 4 | Home Ec. 33 | 2 |
| *(or)* | | Humanities 1 | 4 | Home Ec. 13 | 4 | Home Ec. 50 | 3 |
| Humanities 1 | 4 | Home Ec. 2 | 2 | Home Ec. 18 | 4 | Phys. educ. | 1 |
| Home Ec. 1 | 2 | Home Ec. 3 | 2 | Biology 1 | 4 | Econ. or sociol. | 3 |
| Home Ec. 4 | 2 | Phys. educ. | 1 | Econ. or sociol. | 3 | | |
| Phys. educ.† | 1 | | | Phys. educ. | 1 | | |

## The Suggested Curriculum for Those Who Expect to Terminate Work At End of Two Years

| FIRST YEAR | | | | SECOND YEAR | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| English 1 | 3 | English 2 | 3 | Eng. 3, 4, or 5 | 3-4 | Pub. Speaking | |
| History 1 | 3 | History 2 | 3 | *(or)* | | 3, 6, or 11 | 3 |
| *(or)* | | Home Ec. 3 | 3 | Humanities 2 | 4 | Home Ec. 33 | 2 |
| Humanities 1 | 4 | Home Ec. 2 | 2 | Home Ec. 13 | 4 | Home Ec. 50 | 2 |
| Home Ec. 1 | 2 | Phys. educ. | 1 | Home Ec. 18 | 3 | Phys. educ. | 1 |
| Home Ec. 4 | 2 | | | Phys. educ. | 1 | Physiology 51 | 4 |
| Phys. educ. | 1 | | | Econ. or sociol. or psychology | 3 | | |
| | 11 or 12 | | 11 or 12 | | 15 or 16 | | 12 |
| Electives | 4 to 6 | Electives | 4 to 6 | Electives | 1 to 3 | Electives | 4 to 6 |

### SUGGESTED ELECTIVES

**Freshmen:** Music 77 (2 hrs.), Art 12 (3), language (3); Psychology 1 (3).
**Sophomores:** Home Econ. 105 (2 hrs.), 117 (2), 180 (2), 14 (3).

## The Curriculum for Teachers

Students who wish to obtain a high-school certificate to teach home economics must meet the requirements of the State Board of Education and of the College of Education. Recommendation for certification is made by the divison of home economics to the Dean of the College of Education. For requirements see the bulletin, *Regulations Governing Teacher Selection, etc.*

The head of the Divison of Home Economics in the College of Agriculture, Forestry, and Home Economics is also a member of the College of Education and is the adviser for students wishing to meet the requirements for a high-school certificate to teach home economics.

West Virginia University has been approved by the State Department of Education and by the U. S. Office of Education as qualified to train teachers of vocational homemaking.

All students who meet the requirements for vocational certificates in home economics as set forth in the bulletin, *Regulations Governing Teacher Selection, Guidance, Training, and Certification* and who maintain an average of "C" or better in Education 163 and 224 will be recommended for vocational certificates.

*Prospective dietitians should elect Chemistry 3 and 4.
†Students must elect 4 courses—one from each group: Athletics 9 or 10; Dancing 2, 3, 4, or 15; Individual Activity 6, 7, 8, or 57; and Swimming 1 or 16.

Students transferring from other institutions should do so not later than the junior year. A minimum residence of the entire senior year is required, and students with irregular schedules will require a longer time.

## Major Curricula in Home Economics

### THE TEACHING MAJOR

*(See Teacher Training Bulletin for course requirements)*

### RESEARCH IN FOODS AND NUTRITION

**Recommended:** English 13 (2 hrs.); English 126 (2 or 3); Physics 1 and 3 (4); Physics 2 and 4 (4); Physiol. 51 (4); Chem. 31 (4); Chem. 105 (4); Chem. 106 or 115 (3); Biochem. 239 (4); Math. 3 (4); Math. 4 (2); Math. 5 (4); Math. 107 (4); H. Ec. 107 (3); H. Ec. 218 (2); H. Ec. 251 (2); H. Ec. 252 (3).

### TEXTILES AND RETAILING

**Recommended:** Sociol. 1 (3 hrs.); Econ. 173 (3); Phys. 1 & 3 (4); H. Ec. 225 (2); H. Ec. 226 (2); H. Ec. 230 (2); H. Ec. 134 or 135 (3 or 4); Chem. 5 or 105 (4); Chem. 6 or 106 (3-5); H. Ec. 230 (2); Chem. 31 or 131 (4); Educ. 221 (2); Art 111 (3); Psych. 132 (3); English 126 (2-3). Selected courses in business administration.

### NUTRITION AND DIETETICS

**Required:** Chem. 31 (4 hrs.); Biochem. 239 (4); Physiol. 51 (4); H. Ec. 14 (3); H. Ec. 107 (3); H. Ec. 217 (2); H. Ec. 108 (2-4); H. Ec. 111 (2). **Recommended:** Chem. 105 (4); Chem. 106 or 115 (3); H. Ec. 113 (3); H. Ec. 109 (2); H. Ec. 110 (2); H. Ec. 218 (2); Economics 173 (3). (Refer to current A. D. A. requirements.)

### DESIGN

**Required:** H. Ec. 117 (2 hrs.); H. Ec. 226 (2); H. Ec. 138 (2); H. Ec. 135 (4); H. Ec. 230 (2); Psych. 132 (3). **Recommended:** H. Ec. 225 (2); H. Ec. 136 (2); H. Ec. 173 (3); Art 11 or 111 (3); Art 105 (3); Art 112 (3); Sociol. 105 (3); Econ. 127 (2); Bus. Adm. 128 (3); Physics 1 and 3 (4).

### EXTENSION, HOME SERVICE, AND COMMERCIAL WORK

**Required:** H. Ec. 33 (4 hrs.); H. Ec. 120 (2); H. E. 108 (2-4); H. Ec. 107 (3); H. Ec. 240 (2); Econ. 173 (3); H. Ec. 252 (3); H. Ec. 254 (3).

**Suggested Electives:** H. Ec. 251 (2); Pub Spkg. 11 (3); Pub. Spkg. 6 (3); Pub. Spkg. 118 (3); Psych. 1 or 3 (3); Pol. Sci. 5 (3); H. Ec. 50 (2); Journ. 112 (2); H. Ec. 190 (2); Music 77 (2); Sociol. 3 or 103 (3); Sociol. 105 (3); Educ. 106 (3); Physics 1 and 3 (4). Selected courses in agriculture.

### CHILD DEVELOPMENT

**Required:** H. Ec. 50 (2 hrs.); H. Ec. 240 (2); H. Ec. 241 (2); H. Ec. 107 (3); H. Ec. 215 (2); Psych. 1 (3); Psych. 122 (3); Psych. 234 (3); Libr. Sci. 103 (3); Sociol. 210 (3). **Recommended:** Psych. 224 (3); Pub. Spkg. 240 (3); Pub. Spkg. 130 (3); Music 77 (1).

## COURSES OF INSTRUCTION IN HOME ECONOMICS

Professor NOER; Emeritus Professor COLWELL; Associate Professor NESBITT; Assistant Professors DIETRICH and PALMER; Instructors BOGGESS, THURE, SWANSON, and JONES

(1) Students in the College of Arts and Sciences who major in home economics must meet the requirements in that college and also the departmental requirements as outlined on page 158.

(2) Students who wish to obtain the high school certificate to teach home economics must meet the requirements of the State Board of Education, the College of Education, and the Division of Home Economics. The B. S. H. E. degree in the College of Agriculture, Forestry, and Home Economics is planned to allow sufficient elective to meet these requirements.

(3) Students from other colleges who wish to elect home economics courses without meeting the Science requirements may take Home Economics 1, 2, 3, 4, 33, 50, 115, 116, 120, 134 or 135, 138, 240, and 241; others by consent of instructor.

### Food and Nutrition

Associate Professor NESBITT; Instructors JONES and SWANSON

**1. Elementary Foods and Nutrition.** I, II. 2 Hrs. Mrs. Jones

**13. Food Selection and Preparation.** I, II. 4 Hrs. Two lectures and two laboratories. PR: Chem. 1 or 3 and H. E. 1, or consent of instructor. Chemical and physical bases for food preparation with enough experimental work to give an understanding of the reasons for recommended procedures for the preparation of food products of high quality. Demonstrations, discussions, and workshop. Miss Swanson and Miss Nesbitt

**14. Meal Planning, Preparation, and Service.** I, II. 3 Hrs. One lecture and one 3-hr. laboratory. PR: elementary courses in nutrition and food preparation, or consent of instructor. Problems in selection and purchase of foods and the planning, preparing, and serving of meals, including wise use of time and energy. Miss Swanson and Miss Nesbitt

**105. Food Preservation.** I. 2 Hrs. One lecture and one laboratory. PR: H. E. 13 or equivalent. PR or parallel: Bact. 141. Fundamental principles involved in preservation of foods by canning, drying, fermentation, curing, and freezing as applied in the home and in centers equipped for quantity work. Miss Nesbitt

**107. Nutrition.** I, II. 3 Hrs. Two lectures and one laboratory. PR: Chem. 4, H. E. 13, and Physiol. 51 or 151, or consent of instructor. Food needs as affected by such factors as age, sex, and activity, nutritive value of common foods, and planning of adequate diets at different cost levels. Mrs. Jones

**113. Experimental Cookery.** I. 3 Hrs. Two laboratories of 3 hours each. PR: H. E. 14, Chem. 31. Utensils, ingredients, temperature, manipulation, and cooking methods as they affect quality of cooked products. Offered in alternate years. Miss Swanson

**114. Group Feeding.** I, II. 1 Hr. (Arr.) Miss Nesbitt

**161. Requirements for Normal Human Nutrition.** I, II. 3 Hrs. Lecture and demonstration. Two 2-hour and one 1-hour class per week. For students in other colleges who are interested in nutrition. Staff

**215. Nutrition Work with Children.** II. 2 Hrs. PR: H. E. 13, 14, 107. One lecture, one laboratory. Malnutrition among children of elementary-school age. Causes, prevention, and treatment. Planning and preparing luncheons for a group of children; weighing; measuring; checking food habits and making home visits. Miss Nesbitt

**216. Community Nutrition Problems.** II. 2 Hrs. Two hours of lecture, plus field work. PR: H. E. 13, 14, 107, 215, or consent of instructor. Includes organizations and agencies through which these problems may be solved. Staff

**217. Diet in Disease.** II. 2 Hrs. PR: H. E. 14, 107. Adaptations of the normal diet for diseases whose prevention or treatment is largely influenced by diet. Staff

**218. Advanced Nutrition.** I. 2 Hrs. Topics discussed will depend somewhat upon needs and interests of students participating. Critical review of current literature and of present researches. PR: physiology (3 hrs.), H. E. 107, or equivalent background. Offered in alternate years. Staff

## Institution Management

Assistant Professor PRICE

**108. Quantity Cookery.** I and II. 2-4 Hrs. Application of principles of cookery to preparation of food in large quantity. Use of standardized formulas, calculation of costs, and use of institutional equipment. The Cafeteria is used as laboratory. Staff

**109. Institution Accounting.** 2 Hrs. Current procedures in accounting for institutions. Preparation of budgets, food-control records, financial statements, and reports. Staff

**110. Institution Buying.** 2 Hrs. Quantity-food purchasing for institutions. Observation in local wholesale markets and warehouses. Staff

**111. Institution Organization and Management.** 2 Hrs. Principles of organization and management of institutions of various types. Staff

**112. Laboratory Practice in Institution Management.** I, II. 2 Hrs. PR: H. E. 14 and consent of instructor. (Arranged.) Experience under supervision in planning, preparing, and serving food in an institution. Selection of place and type of experience to be determined by needs of students. Staff

## Textiles and Clothing

Assistant Professor DIETRICH

**2. Elementary Clothing.** I, II. 2 Hrs. Problems in selection, purchase, construction, and conservation of clothing.

**18. Intermediate Clothing.** 3 Hrs. Two 3-hr. laboratories. Clothing needs of the family; buying and alteration of ready-made garments. Experience in construction with particular emphasis on pattern adaptation and remodeling.

**115. Clothing Selection.** I, II. 2 Hrs. Two lectures. Selection of clothing for the whole family from the point of view of design, color, and economy. Clothing inventories and buying plans. PR: H. E. 3, H. E. 2, or consent of instructor.

**116. Clothing Techniques.** II. 2 Hrs. Not open to home economics majors. Techniques for simple garment construction, remodeling, alteration, and repair. Problems adapted to needs of individual students. Especially planned for Arts students, wives of Army trainees, and young homemakers.

**117. Textiles.** I, II. 2 Hrs. Lecture and laboratory combined. Textile fibers and fabrics studied with a view to their use in dress and in the home. PR: H. E. 2 and 3 or consent of instructor.

**120. Selection and Construction of Clothing.** I, II. 2 Hrs. Two laboratories. Construction of wool and rayon garments. Pattern alteration and adaptation. Making over clothing. PR: H. E. 3, H. E. 2, or consent of instructor.

**225. Advanced Clothing Construction.** II. 2 Hrs. Two 2-hr. laboratories. Tailoring, draping on the dress form, coat making, and special finishes. PR: H. E. 18, 115, 117, 120, or consent of instructor.

**226. Advanced Textiles.** II. 2 Hrs. Two 2-hour periods which combine lecture and laboratory. Major textile fibers, and alternates among the lesser-used fibers. Commercial laundry and cleaning establishment. Fur fibers. PR: H. E. 117, chemistry, and Econ. 1 or 173, or their equivalent.

## Applied Arts

Assistant Professor PALMER

**3. Art Applied to Personal Problems.** I, II. 2 Hrs. Study of principles of design intended to help college students meet the problems of daily living. Problems may include room arrangement, clothing design, etc.

**33. Present-day Housing.** II. 2 Hrs. PR: H. E. 3 or consent of instructor. Factors to be considered in solution of problems of providing housing for the family. Special attention to low-cost living. Planning for the home, cost of furnishing, and maintenance. Laboratory practice in making improvement for rooms, apartments, and housing, using materials commonly found in rural communities and small towns.

**134. House Decoration.** II. 3 Hrs. For non-majors. One lecture and 2 laboratories. Materials and furnishings that go into decoration of a home, with emphasis on cost, buying, reconditioning, and furnishing.

**135. Home Planning and Furnishing.** I, II. 4 Hrs. Two lectures and two laboratories. Fundamentals of planning arranged to develop better understanding of house structure and home needs. Discussions on home decorating based on various income levels and suited to various communities and needs. PR: H. E. 3.

**136. Advanced Home Planning and Furnishing.** II. 2 Hrs. Two laboratories PR: H. E. 3 and 33 or 135 or consent of instructor.

**138. Home Crafts.** I, II. 2 Hrs. Two laboratories. Knitting, crocheting, decorative stitchery, leather-tooling, glove-making, children's toys, weaving.

**230. Costume Design.** II. 2 Hrs

## Health and Child Care

Instructor THURE

**240. Child Development.** I, II. 2 Hrs. Two lectures. Study of the child from prenatal period through adolescence. The University Nursery School is used for observing pre-school children—each girl spends 1 or 2 hours a week observing and assisting.

**241. Observation and Participation in Nursery School.** I, II. 1-2 Hrs.

## Home Management

Associate Professor NESBITT and STAFF

**4. Management.** I, II. 2 Hrs. Simple problems in the management of time, energy, and resources. Practical application to problems of individual members of class. Staff

**251. Mechanics of the House.** I, II. 2 Hrs. Two lectures. Work areas of the house. Kitchen planning and efficiency. Standards in selection of equipment for cleaning and for the kitchen and laundry as they apply to machines, heat, refrigeration, and electricity. Care of equipment. PR: 25 hrs. of home economics or consent of instructor. Miss Nesbitt

**252. Home Management Laboratory.** I, II. 3 Hrs. Arranged. Emphasis on satisfying family life and social relationships. Approximately 5 weeks of house residence, and 1 hour of discussion each week throughout the semester. PR: 25 to 30 Hrs. of home economics. Staff

**254. Home Management (Economic Problems of the Home).** I, II. 3 Hrs. Three lectures. Economic problems of the American family. Standards of living, budgeting and account keeping, buying problems. Value of household production. Providing for the future. PR: H. E. 33, 4, and 13. Miss Nesbitt

## Home Economics Education

Professor NOER; Instructor BOGGESS

**Ed. 163. Materials and Methods in Home Economics.** I, II. 2 Hrs. Miss Boggess

**Ed. 262. Vocational Home Economics in Secondary Schools.** I, II. 2 Hrs. Miss Noer

*(For additional courses, see Summer Session Bulletin)*

## General Courses

Professor NOER and STAFF

**50. Management in Family Living.** II. 2 Hrs. PR: H. E. 4 or consent of instructor. Influence of home conditions on families and family members. In considering ways of meeting every-day problems of families, an attempt will be made to apply the findings of science and the techniques of management in such a way as to help one achieve satisfaction in living. Mrs. Jones

**160. Problems in Home Management and Family Living.** I, II. 2 to 4 Hrs. A general course dealing with various phases of family life and home management. Open to juniors and seniors not majoring in home economics. Staff

**180. Problems in Home Economics.** I and II. 1 to 4 Hrs. Staff

**270. History of Home Economics.** I, II. 1 Hr. One lecture. Miss Noer

**280. Problems in Home Economics.** I and II. 1 to 4 Hrs. Staff

# The College of Arts and Sciences

## ORGANIZATION

The University, through its liberal arts college, offers that academic training which is so essential today as a foundation for good citizenship, enlightened leadership, and effective professional or technical training. It puts thoroughness above breadth of offerings. It provides a curriculum rigid enough to conserve the best in the cultural subjects, yet elastic enough to meet the varying talents and aptitudes of individual students.

Present-day standards in business, industry, and the professions are becoming more and more exacting. Increasing emphasis is being placed upon a liberal education as a foundation for technical or professional work. As a consequence, the paths to the professions lead through this college. Preprofessional curricula have been arranged in law (three years), education (two years), medicine (two, three, or four years), dentistry (two or three years), nursing, social work, journalism, and medical technology.

The College of Arts and Sciences includes a lower division and an upper division. The lower division consists of the work of the first and second years, and the upper division consists of the work of the third and fourth years.

The instruction in the College of Arts and Sciences is administered through the following departments:

> Art; botany and zoology; chemistry; classics; economics and business administration; English language and literature; geology, mineralogy, and geography; Germanic languages and literatures; history; home economics; library science; mathematics; philosophy and psychology; physics; political science; public speaking; Romance languages and literatures; sociology; and social work.

Two baccalaureate degrees are granted in this College: Bachelor of Arts (A. B.) and Bachelor of Science (B. S.). The Bachelor of Arts degree is conferred upon those who pursue the four years of academic work in the College or upon those who pursue three years of work in this College and one year in either the College of Law or the School of Medicine.[1]

The Bachelor of Science degree is conferred upon those who pursue the combined scientific and medical courses, or special curricula in chemistry, in business administration, or in social work.[1]

### Main Objectives

The curriculum of the College of Arts and Sciences has four main objectives:

1. *General Culture.* The work of the lower division is intended to complete what is usually termed "a general education." It rounds out the program of study pursued in the high school. It is based on the belief that the student should become familiar with different fields of knowledge to the end that he may select wisely the field for specialization. This general culture should include studies in English, at least one foreign language, natural science, and the social sciences. In the selection of subjects or groups in the lower

[1]See page 55, "Classification of Students."

division, the student should be guided somewhat by the nature of the subjects taken in the high school so that by the close of the second year the student will have a general acquaintance with various fields of knowledge.

Students who are not qualified for regular college work, as well as those who do not expect to spend more than one or two years in this College and are not candidates for the junior certificate, may, with the approval of the adviser, select such lower-division courses as they are qualified to pursue with profit.

2. *Opportunity for Specialization.* The work of the upper division is intended to provide intensive study in one or two fields of knowledge. It is based on the belief that an educated man or woman should not only know the fundamentals of several branches of study but should have a rather thorough knowledge of some selected field. In the upper division, therefore, the student concentrates on a major, and one or two minors.

3. *A Reasonable Freedom of Electives.* The curriculum of this college is sufficiently flexible to meet the needs and tastes of individual students without, at the same time, exposing the students to the disadvantages of a free elective system.

4. *Special Provisions for the Junior Certificate.* Experience has shown that students whose average in high-school subjects was below 75%, or students who ranked in the lowest one-fourth of the high-school graduating class, probably will not succeed in the regular college curriculum. Nevertheless such students may, by a wise selection of studies, profitably spend one or two years in college. Other students for financial or other reasons may not be able to attend college for more than one or two years. It is believed that students in either group may spend their time more profitably by taking courses in which they are particularly interested from a cultural or vocational point of view than by following the curriculum leading to the A. B. degree. Students who are not candidates for the A. B. degree but who earn 64 hours of college credit and 64 honor points, including general University requirements, in residence in this College will be awarded the Junior Certificate of the College of Arts and Sciences.

## Advisers

*Lower Division.* Each student in the lower division is assigned to an adviser who will assist in registration and who will have general supervision over the work of the student. Electives are chosen and changes in the program are made with the approval of the adviser. Students are urged to confer with advisers in respect to any difficulties or mal-adjustments in college life.

*Upper Division.* Each student in the upper division is assigned to an adviser of the department to which the major subject belongs. The program of study and all changes in class assignments must be approved by the adviser.

## The Major Subject

In the upper division the student concentrates on a major and one or two minor subjects selected from the following list of subjects:

Art
Botany
Chemistry
Classics
Economics
Business
English
French
Geology
German
History
Home Economics
Library Science
Mathematics
Philosophy
Physics
Political Science
Psychology
Public Speaking
Social Work
Sociology
Spanish
Zoology

## REQUIREMENTS FOR DEGREES

### Credit Defined

The "semester-hour" is the standard for computing the amount of work required for graduation in the curricula leading to these degrees. The "hour" represents the amount of work done in one semester (18 weeks) in one recitation hour with two preparation hours a week.

### Classification of Students

To be classified as a freshman in the College of Arts and Sciences a student must have credit for at least 15 units of entrance requirements; to be classified as a sophomore he must have fulfilled all entrance requirements and have credit for 25 hours of college work; as a junior, 58 hours; as a senior, 92 hours.

### Marking System

The student's scholastic record is indicated by the following marking system in use at the University:

A—excellent (given only to students of superior attainment)
B—good (given to those students who are well above the average but who are not in the highest group)
C—fair (average students)
D—poor but passing[1]
E—condition[2]
F—failure
FIW—failure because of irregular withdrawal
I—incomplete[3]
WF—withdrew failing subsequent to mid-semester
WP—withdrew passing subsequent to mid-semester
W—withdrew prior to mid-semester

The quality of a student's work shall be indicated by honor points according to the following plan:

The grade of A carries 3 honor points per credit hour
The grade of B carries 2 honor points per credit hour
The grade of C carries 1 honor point per credit hour
The grade of D carries 0 honor point per credit hour

[1]Students are permitted to re-register in any course for which a grade "D" has been received. In such cases the second grade shall replace the first and be final.
[2]A "condition" must be removed during the next semester in which the student is registered in the University, or it automatically becomes a failure.
[3]If a grade of "I" is not removed within the following semester by the satisfactory completion of the work of the course, it becomes a failure unless special permission to postpone the completion of the work is obtained from the Committee on Scholarship of this College.

Honor points are based only on grades earned at West Virginia University and all courses taken in this institution which are offered towards credit requirements for the degree for which the student is a candidate shall be included in the computation of honor points. The student must maintain an average of one honor point per credit hour in order to be eligible for graduation. Students who wish to be recommended for a high-school teaching certificate in West Virginia must, in addition to meeting the above standard for the bachelor's degree, have an honor point average of at least 1 in each teaching field and in education.

A student may decrease the total number of hours required for graduation by doing work of superior quality. For each eight honor points in excess of one honor point per credit hour, the number of credit hours required for graduation shall be diminished by one. This regulation applies only to the total number of credits required. It does not apply to specific requirements for the degree.

It is the student's responsibility to keep informed on his honor-point standing. This information may be secured at any time from the Dean of his College.

## General Requirements for All Degrees

*Foreign Language.* Fewer than 6 hours in an ancient or modern language will not be counted towards any degree, diploma, or certificate in this College unless work in the same language has been offered for entrance.

*Electives.* At least 6 hours must be taken in each subject as an elective, but no more than 9 hours in isolated courses of less than 6 hours each, selected with the approval of the adviser, may be offered.

In addition to the regular elective work in the College of Arts and Sciences which is offered by the faculties in other colleges, work not to exceed 15 hours in the College of Law, the College of Agriculture,[1] the College of Engineering and the School of Mines,[2] the School of Music,[3] the School of Physical Education and Athletics,[4] the School of Journalism, or 12 hours of upper-division work in Military Science and Tactics, or 20 hours in the College of Education, may be included in the list of elective credits offered by students in the College of Arts and Sciences. The total number of hours elected from other colleges shall not, however, exceed 24 hours in all.

The course in general biochemistry is available (without additional fees) in the School of Medicine.

[1]In addition to the 15 hours, the following courses in agriculture are regular electives in the College of Arts and Sciences: Farm Economics 131, and all courses in entomology, genetics, and plant pathology. (See the special curriculum for the A. B. and B. S. in Agriculture.)

[2]The engineering and mining electives include Chemical Engineering 101, 202, 205, 206, 210, 220, and 221; Civil Engineering 1, 2, 3, 10, and 115; Electrical Engineering 100, 101, 102, 103, 200, 201, 202, 203, 205, and 206; Mechanical Engineering 20, 23, 24, 26, 29, 221, and 222; Mechanics 101, 102, 103, and 104; and Mining Engineering 106, 202, 203, and 204. In addition the student may elect with the consent of his adviser, when his major is Physics, Mechanical Engineering 1 and 13S and 101 to 107 (10 hrs.); and Ch. E. 110S and 235S (4 hrs.).

[3]The music electives include Theory of Music 1, 2, 72, 73, 75, 77, 79, 109 to 118, 180 to 183, 240, 241, and 281; Ensemble 153 to 156; classes in orchestra instruments 191 to 196; Men's Glee Club, Women's Glee Club, and University and Community Orchestra; and piano or voice or violin or pipe organ or band and orchestra instruments.

[4]The electives in physical education are: P. E. 77, 127, 151, 167, 277, and Safety Education 181.

*Major Subject.* The maximum amount of credit allowed in any one department is ordinarily 40 hours. Exceptional cases involving extension of hours in the major must have the previous approval of the Scholarship Committee.

## Requirements for the Bachelor of Arts Degree

The Bachelor of Arts degree in the College of Arts and Sciences is conferred upon any student who complies with the general regulations of the University concerning degrees, satisfies all entrance, college, and departmental requirements, and completes any one of the following courses of study:

A. Regular course (128 hours)
B. Pre-Medical course (128 hours)
C. Combined courses:
   (a) Arts and Law (124 hours)
   (b) Arts and Medicine (128 hours)

Students transferring to West Virginia University from other institutions should ordinarily do so not later than the beginning of the third year. Such students must meet all the requirements of the lower division. All deficiencies must be met as soon as possible after admission to this College, whereupon such student may register regularly in the upper division.

*Maximum and Minimum Work.* A student who has made an average the preceding semester of "B" or better while carrying at least 16 hours may enroll for a maximum of 19 hours without petitioning the Scholarship Committee. A student who has made an average in the preceding semester of "C" or better while carrying at least 16 hours may without petitioning enroll for a maximum of 18 hours, 36 hours for the year, provided that no more than 34 hours are academic work.

## Note

In the following departmental curricula the number of the course is indicated in bold-face type. The figure in the parentheses immediately following refers to the value in semester credit hours offered for the course.

### A. REGULAR COURSE (128 HOURS)

*Four years in the College of Arts and Sciences*

#### Lower-division Curriculum

(a) *General University Requirements.*
Military science[1]—6 hours.
Physical education (men)[2]—2 hours.
Physical education (women)[2]—4 hours.

(b) *Science.* At least 8 hours of a laboratory science chosen from the following list: botany, chemistry, geology, physics, zoology, biology, psychology.

[1]Military science is required of all male students except those who at the time of matriculation are 23 years of age or have completed no less than 58 hours of work, and all who have credit for 6 hours of military science or 1 unit of entrance credit in military academy. Students must register for military science upon their entrance into the University and continue in the course until the full requirement has been met or until a regular examination card is filed in the Registrar's office.

[2]Two hours of physical education for men, to be taken during the first year of residence, and four hours of physical education for women, to be taken during the first and second years in residence, are required for graduation of students presenting fewer than 58 semester hours, unless previous credit has been allowed.

(c) *Foreign Language.* To be eligible for graduation a student must have completed twelve semester hours in a foreign language in college or two units for entrance and six hours in the same language in college.

(d) *English composition.* Ordinarily 6 hours of English composition (English 1 and 2) will be required of all freshmen. In case a freshman is not qualified to meet the requirements in English 1, as shown by placement or other tests, he (or she) will be assigned to English 1C, which carries 3 hours of University credit. Upon the successful completion of the work in English 1C the student will register for the regular work in English 1.

(e) *Additional.* At least 6 hours in each of three of the following:

(1) English (additional to d), or public speaking.
(2) Foreign language (additional to c).
(3) Mathematics.
(4) History.
(5) Political science.
(6) Economics or sociology.
(7) Philosophy and psychology.
(8) Home economics.
(9) Science (additional to b).
(10) General introductory courses.
(11) Art.

(f) *Electives,* under the supervision of the adviser, to make a total of 64 hours. Ordinarily freshmen should register for required courses. Electives should be used in the second year chiefly in meeting the preliminary requirements of the departments in which the student expects to do the work of the major and minor (or minors) in the upper division.

### Upper-division Curriculum

1. *A major sequence* of 18 to 24 hours of upper-division courses, preceded by the proper lower-division courses prescribed as preparation for the major. This work should represent a coherent and progressive sequence of courses as outlined in the departmental announcements. The major subject will be selected when the student registers in the upper division, but the student must plan the work in the lower division in such way as will meet the departmental requirements for the major and minor.

2. *A minor sequence* of 9 to 12 hours of upper-division courses, preceded by the proper lower-division courses, in some department closely related to the major department. At the option of the major department, a second minor of 6 hours may be required in a second department closely related to the major department.

3. *Electives,* under the supervision of the departmental adviser, to make a total of 128 hours.[1] At least 52 of the 64 hours in the upper division must be selected from upper-division courses.[2] A departmental adviser may permit a student in the upper division to elect lower-division courses to an amount not exceeding 12 hours when such action will be an advantage to the student in connection with the major or minor sequence, but honor points will count only at the rate of 1 honor point per credit hour.

[1]A student may decrease the total number of hours required for graduation by doing work of superior quality. For details of this plan see page 117.

[2]A candidate for the B. S. in Chemistry should present 56 hours in upper-division courses.

## B. PRE-MEDICAL CURRICULA[2]

The following sequence of courses is worked out for the general guidance of students who are preparing for the study of Medicine. It includes all the required subjects. While the pre-medical student is meeting the minimum requirements of the School of Medicine as stated in the Catalogue, page 43, the medical faculty prefers that he use his elective hours to secure a broad, general training rather than to secure a large number of credits in any one special field. Leading medical educators in the United States today also are definitely in favor of a good general training rather than extensive specialization in the so-called pre-medical sciences.

FIRST YEAR, FIRST SEMESTER: English **1** (3); Chemistry **3** (4); Biology **1** or Zoology **1** (4); modern language or Latin (3); military science (1); physical education (1). Total, 16 hours.

FIRST YEAR, SECOND SEMESTER: English **2** (3); Chemistry **4** (4); Zoology **2** (4); modern language or Latin (3); military science (1); physical education (1). Total, 16 hours.

SECOND YEAR, FIRST SEMESTER: English **13** (2) or **3** (3); Physics **1** and **3** (4); Chemistry **5** (4); zoology, or mathematics*, or Psychology **1**, or cultural group† (3); modern language (3); military science (2). Total, 17 or 18 hours.

SECOND YEAR, SECOND SEMESTER: English **14** (2) or **4** (3); Physics **2** and **4** (4); Chemistry **15** (3); zoology or Mathematics **10**,* or Psychology **1**, or cultural group† (3); modern language (3); military science (2). Total, 16 or 17 hours.

THIRD YEAR: Chemistry **163** (3) and **136** (6); Zoology **231*** (4); zoology group, or mathematics, or Psychology **101** (3); cultural group† (12); related science group‡ or modern language (4 to 6). Total, 32 or 34 hours.

FOURTH YEAR: Chemistry Group (2 to 6); zoology group (including **231**)* (2 to 6); cultural group† (12); related science group‡ (6); modern language group or electives as needed to complete hours required for graduation.

## C. COMBINED COURSES[2]

### Arts and Medicine

*Course A.* Students receive the Bachelor of Arts Degree upon the completion of four years of pre-medical work (128 hours), and the Bachelor of Science Degree at the completion of two years of medicine.

*Course B.* Students who enter the School of Medicine after the completion of the first three years (90 hours exclusive of military and physical

*Recommendations — Many medical schools require or recommend 6 hours of Mathematics; some recommend that Zoology 231 (Comparative Anatomy) and courses in Chemistry be taken the year before entering medical school; many require and many recommend a knowledge of Latin. The schedule provides for all these requirements and recommendations.

†Cultural group — To be chosen from English, humanities, economics, sociology, history, political science, philosophy, public speaking, foreign language, education, music.

‡Related science group — To be chosen from biology, botany, physics, mathematics, geology, psychology, genetics, pharmacy, physiology.

[2]A specific statement concerning entrance requirements to the School of Medicine will be found on page 43.

education) of the pre-medical curriculum receive the Bachelor of Arts degree upon the completion of the first year of medicine, and the Bachelor of Science degree upon the completion of the second year of medicine.

Students who are working toward the combined A. B. degree described in Course B above while taking the courses in the School of Medicine must also be registered in the College of Arts and Sciences.

*Modern Foreign Language Requirements:*

Course A requires a reading knowledge of both French and German, with a minimum requirement of 18 hours. Course B requires a reading knowledge of either German or French, with a requirement of 12 hours, which may be divided between the two languages by students who present two units of either language for entrance.

## D. PRE-DENTAL COURSES

The following courses are planned for students preparing for the study of dentistry. In case a student expects to enter a certain school of dentistry these courses may be changed to suit his needs.

### (1) ONE-YEAR COURSE

A course preparing for schools of dentistry requiring for entrance one year of pre-dental work. This course has the bare minimum requirements and little of cultural value. Few schools of dentistry admit on one year's preparation.

FIRST SEMESTER: English **1** (3); Chemistry **3** (4); Biology **1** (4); Physics **1** and **3** (4); military science (1); physical education (1). Total, 17 hrs.

SECOND SEMESTER: English **2** (3); Chemistry **4** (4); Zoology **3** (4); Physics **2** and **4** (4); military science (1); physical education (1). Total, 17 hrs.

### (2) TWO-YEAR COURSE

A course preparing for schools of dentistry requiring for entrance two years of pre-dental work. This course has, in addition to the minimum requirements, certain courses of general cultural value.

FIRST YEAR, FIRST SEMESTER: English **1** (3); Chemistry **3** (4); Biology **1** (4); German or French (3); military science (1); physical education (1). Total, 16 hrs.

FIRST YEAR, SECOND SEMESTER: English **2** (3); Chemistry **4** (4); Zoology **3** (4); German or French (3); military science (1); physical education (1). Total, 16 hrs.

SECOND YEAR, FIRST SEMESTER: Physics **1** and **3** (4); Chemistry **15** (3) and **63** (3); Psychology **1** (3); or Zoology **231** (4); German, French, or English **3** (3); military science (2). Total, 18 hrs.

SECOND YEAR, SECOND SEMESTER: Physics **2** and **4** (4); Chemistry **36** (6); Psychology **1** or Zoology **210** (3); German, French, or English **4** (3); military science (2). Total, 18 hrs.

### (3) THREE-YEAR COURSE

A course preparing for schools of dentistry requiring for entrance three years of pre-dental work. The first two years (67 hours) of this course are identical with course B except that, during the second year, French or German is taken instead of English 3 and 4. Students who enter an approved School of Dentistry after the completion of this course (90 hours exclusive of military and physical education) receive the Bachelor of Arts degree upon completion of the first year of dentistry, provided their applications receive approval by the Scholarship Committee.

THIRD YEAR: English **3** (3) and **4** (3); economics or sociology or history or political science or modern language (18); Chemistry **107** (2) and **238** (5); physics or psychology or elective (3). Total, 34 hrs.

### (4) FOUR-YEAR COURSE

A course preparing for Schools of Dentistry requiring for entrance four years of pre-dental work. On completion of this course (128 hours) students receive the Bachelor of Arts degree. The first three years of this course are identical with Course 3.

FOURTH YEAR: chemistry group (2-6); zoology group (2-6); cultural group (12); related-science group (6); modern-language group or electives as needed to complete the 128 hours required for graduation.

## PRE-PROFESSIONAL COURSES

*Not leading to degrees in the College of Arts and Sciences*

### (A) PRE-NURSING CURRICULUM

The following arrangement of courses is worked out for the general guidance of students who are preparing for the profession of nursing. This curriculum includes all subjects generally required by professional schools of nursing. The tendency in nursing education is toward the establishment of a requirement of at least two years of college work preparatory to entering the school of nursing. Students are advised to use their elective hours in the direction of a broad, general education and, if possible, to complete the requirements for the A. B. degree.

FIRST YEAR, FIRST SEMESTER: English **1** (3); Chemistry **3** (4); Zoology **1** (4); language (or elective) (3); physical education (1). Total, 15 hrs.

FIRST YEAR, SECOND SEMESTER: English **2** (3); Chemistry **4** (4); Zoology **2** (4); language (or elective) (3); physical education (1); elective (3). Total, 15 to 18 hrs.

SECOND YEAR, FIRST SEMESTER: English literature (3); language (or elective) (3); Sociology **1** (3); Psychology **1** (3); physical education (1); elective (3). Total, 16 hrs.

SECOND YEAR, SECOND SEMESTER: English literature (3); language (or elective) (3); Sociology **3** (3); Psychology **10** (3); physical education (1); elective (5). Total, 18 hrs.

### THIRD AND FOURTH YEARS

Students are advised to select psychology, sociology, or zoology as a major subject and one other subject in this group as a minor. If possible the student should select the School of Nursing which she proposes to enter and use her electives in meeting the pre-professional requirements or recommendations of that particular school.

## (B) PRE-PROFESSIONAL SOCIAL WORK

An undergraduate pre-professional social-work curriculum was developed in 1938 in the sociology department. The purpose of this pre-professional curriculum is to prepare students for entrance into graduate schools of social work (professional education for social work is on a graduate basis in all accredited schools of social work). This undergraduate program includes broad and intensive preparation in the social sciences and related fields. Fundamental courses in economics, history, political science, psychology, and sociology are required. These courses will meet all the necessary requirements of students who plan to enter the department of social work, West Virginia University, or other graduate schools of social work; they will also fulfill the requirement of the American Association of Social Workers for the 15 semester hours of social and biological science for junior membership and the 20 semester hours for full membership.[1]

## (C) PRE-EDUCATION

Candidates for the degree of Bachelor of Science in Education are registered in the College of Arts and Sciences until they have completed 58 hours or more of academic work in the lower division of the College, with an honor-point average of 1.0. They are then transferred to the College of Education. During the Pre-Education period students are advised to complete as many as possible of the general courses required by the College of Education and for State certification, as shown in the General Catalogue.

In addition to the above general academic requirements students are advised to complete as many as possible of the required academic courses in two teaching fields. See the General Catalogue.

Upon the successful completion of the entire 64 hours of work in the lower division, Pre-Education students are eligible for the Junior Certificate of the College of Arts and Sciences.

### TEACHING CERTIFICATES

The College of Education is authorized by the Board of Governors to recommend all applicants for teaching certificates.

Teaching certificates may be obtained by students registered in the College of Arts and Sciences as well as in the College of Education, provided they meet the requirements for teaching subjects.

For specific requirements in regard to certification see the *Bulletin* on Teacher Certification Regulations.

[1]For a detailed statement concerning the undergraduate social-work courses, see page 175.

Candidates for the A. B. degree who wish to qualify for teaching certificates should indicate this fact to their adviser and plan their entire course with this in view. Unless this is done by the end of the freshman year, students may encounter difficulties in qualifying for the certificate by the time they receive the degree. As a check, consultation with Prof. Elizabeth M. Stalnaker, the adviser of Pre-Education students, should be had each semester.

### (D) PRE-JOURNALISM CURRICULUM

Candidates for the degree of Bachelor of Science in Journalism are registered in the College of Arts and Sciences until they have earned at least 58 semester hours of college credit. During the freshman and sophomore years they should have completed all or most courses specified for pre-journalism majors.

A pre-journalism student who has not maintained at least a C average in all his college subjects during his first two years is strongly advised not to enroll in the professional school. If his average grade in English 1 and English 2 was less than B, he should register for English 13 during his sophomore year. Before or soon after entering the University a prospective journalism student should master the touch system of typewriting, and before completing his sophomore year he is urged to have learned shorthand.

The recommended pre-journalism curriculum follows:

FIRST YEAR, FIRST SEMESTER: English **1** (3); History **1** (3); science (4); foreign language (3); physical education (1); military science (men) (2); electives (1-2). Total, 15 hrs.

FIRST YEAR, SECOND SEMESTER: English **2** (3); History **2** (3); science (4); foreign language (3); Introduction to U. S. Journalism (1); physical education (1); military science (men) (2); elective (0-1). Total, 16 hrs.

SECOND YEAR, FIRST SEMESTER: Newspaper Reporting (3); History **52** (3); foreign language or English **5*** (3); Economics **1** (3); Psychology **1**† (3); military science (men) (2); physical education (women) (1); electives‡ (0-7). Total, 16-17 hrs.

SECOND YEAR, SECOND SEMESTER: Newspaper Reporting (3); History **53** (3); foreign language or English **4*** (3); Economics **2** (3); Political Science **5** (3); military science (men) (2); physical education (women) (1); electives (0-4)‡. Total, 16-17 hrs.

### (E) ARTS AND LAW

*Three years* (96 hours) *in the College of Arts and Sciences, and one year* (28 hours) *in the College of Law*

A pre-legal course has two main objectives. The first is to enable the student to acquire a general cultural background, which is in harmony with the chief purpose of the College of Arts and Sciences. The second is to help

*Majors unable to schedule English 4 and English 5 in their sophomore year will be required to take them in their junior year.

†A sophomore expecting to become a high-school teacher will choose an elective in his intended teaching field as a substitute for Psychology 1 and in his junior year will take Education 106, Educational Psychology.

‡Because of the growing demand for graduates trained for circulation, advertising, promotion, and other positions in the business department of newspapers, sophomores are urged to elect Jour. 110, "Newspaper Typography," or Jour. 113, "Principles of Advertising," or both, for the first semester, if their schedules will permit.

the student to secure a more specialized background for the legal course that is to follow.

In nearly all cases, these objectives can be attained more effectively by taking the regular four-year Arts and Sciences course, during the last two years of which the student may choose his major and minor with particular reference to his legal work. In addition to securing the Bachelor of Arts degree, it will qualify him for admission to almost any law school.

To enable students to receive the degree of Bachelor of Arts and Bachelor of Laws in a shorter period of time, a special course has been arranged by which the student may complete the required studies in the College of Arts and Sciences in three years, and, after passing the entire first year of work in the College of Law, be awarded the degree of Bachelor of Arts. This course satisfies the entrance requirements to the College of Law, but permits less freedom in choosing electives. All prelegal students who did not make an average of B or better in English 1 and 2 are required to take English 13 and 14, two courses with certain sections designed especially for prelegal students. The student should confer with the Pre-Law adviser as soon as he enters the University. The following schedule is suggested as being adapted to the above course:

FIRST YEAR, FIRST SEMESTER: English 1 (3); botany, chemistry, geology, physics, zoology, or biology (4); French, German, or Latin[1] (3); History 1 (3) or Humanities 1 (4); military science (1); physical education (1). Total, 15 or 16 Hrs.

FIRST YEAR, SECOND SEMESTER: English 2 (3); botany, chemistry, geology, physics, zoology, or biology (4); French, German, or Latin[1] (3); History 2 (3) or Humanities 2 (4); military science (1); physical education (1). Total, 15 or 16 Hrs.

SECOND YEAR, FIRST SEMESTER: English 13 (2); language (3); History 52 (3); Political Science 4 (3); Social Science 1 (4); electives (lower-division courses should be taken in the departments in which the student may wish to do upper-division work); military science (2).

SECOND YEAR, SECOND SEMESTER: English 14 (2); language (3); History 53 (3); Political Science 5 (3); Social Science 2 (4); electives; military science (2).

THIRD YEAR: pre-law major (12); pre-law minor (9); electives (9 to 15). Total, 32 or more hours.

FOURTH YEAR: 28 hrs. in the College of Law.

### (F) CURRICULUM FOR THE DEGREES A. B. AND B. S. IN AGRICULTURE

Students who desire a broader training than that furnished in the curriculum leading to the degree in agriculture are reminded that, by proper arrangement of their courses, they may obtain both degrees in five years. Such students will normally take the degree in the College of Arts and Sciences first, usually with major work in the field of biology. Several courses

[1]Latin 1 and 2 are recommended for students not having entrance credit of 2 units in this subject.

given in the College of Agriculture and required for the degree in agriculture are accepted as regular electives in the College of Arts and Sciences; in addition to these the student is permitted to elect fifteen semester hours from courses in colleges other than the College of Arts and Sciences; these may all be taken in the College of Agriculture. A suggestive list of courses, most of which should be taken during the first four years, follows:

Chemistry 3, 4, and 31 or 36; (a) Biology 1 and Botany 4 and Zoology 3; or (b) Botany 1 and 2 and Zoology 1 and 2; Physics 1, 2, 3, and 4; Economics 1 and 2 (or Economics 1 and Agricultural Economics 2); Geology 1; Bacteriology 141; Entomology 2 (possibly 103 or 204 in addition); Genetics 111 and 112 or 221; Plant Pathology 103 or 201; Animal Pathology 102 (possibly 206 also); Animal Husbandry 2, 203; Agronomy 2 (Soils).

Also 15 hours from the following group; more if possible:

Poultry 1; Agronomy 1; Horticulture 1; Dairy Husbandry 1; Animal Husbandry 102.

In many of the organizations which employ men trained in agriculture the broader training suggested should give the student much greater prospect of employment. He should, of course, have the necessary agricultural background of a certain period of residence on a farm; the student who does not have this will be required, as are all candidates for the degree in agriculture, to satisfy the faculty of the College that he qualifies in this regard.

The specific course requirements and the group requirements as well as major and minor departmental requirements in the College of Arts and Sciences must be satisfied.

## (G) MEDICAL TECHNOLOGY CURRICULUM[1]

**First Year**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Chemistry 3 | 4 | Chemistry 4 | 4 |
| Zoology 1 | 4 | Zoology 2 | 4 |
| English 1 | 3 | English 2 | 3 |
| Modern lang. | 3 | Modern lang. | 3 |
| Electives | 2 | Electives | 2 |
| Physical educ. | 1 | Physical educ. | 1 |
| Military | 1 | Military | 1 |
| | 18 | | 18 |

**Second Year**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Chemistry 5 | 4 | Chemistry 15 | 3 |
| English 3 | 3 | English 4 | 3 |
| Modern lang. | 3 | Modern lang. | 3 |
| Physics 1 to 3 | 4 | Physics 2 to 4 | 4 |
| Electives | 2 | Electives | 2 |
| Physical educ. (women) | 1 | Physical educ. | 1 |
| Military | 2 | Military | 2 |
| | 19 | | 19 |

**Third Year**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Bacteriol. 101 | 5 | Physiol. 101 | 4 |
| Organic Chem. 131 | 4 | Biochem. 239 | 4 |
| Zoology 231 | 4 | Parasitol. 120 | 3 |
| Electives | 4 | Electives | 5 |
| | 17 | | 16 |

**Fourth Year**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Urine Analysis | 5 | Clinical Pathol. | 3 |
| Normal Hematology | 4 | Appl. Bacteriol. | 4 |
| Microtechnique | 3 | Special Hematology | 3 |
| Applied Serology | 4 | Metabolimetry | 3 |
| Applied Parasitol. | 1 | Electrocardiogr. | 2 |
| | | Electives | 2 |
| | 17 | | 17 |

[1]Before registering in this pre-professional course the student should read the full account of this training in the Bulletin of the School of Medicine.

## EXTENSION COURSES

As a part of the University Extension Service the College of Arts and Sciences and the College of Education from time to time have conducted at several centers in various parts of the State extension courses for which regular college credit has been given. The work given in the extension courses corresponds in every particular, as to class requirements and credits, with that given in similar courses on the campus. Similar extension courses will be provided in other parts of the State when the facilities of the University will permit.

The giving of extension courses is subject to the following conditions: (1) Courses will not be organized at any place unless the demand is sufficient to justify it. (2) Courses offered by resident instructors will be given in Morgantown and in nearby places easy of access, generally on Friday afternoons and Saturdays. (3) Regular extension instructors will offer courses only in such places as can be reached from their headquarters.

## VETERANS' EDUCATION

### THE COORDINATED PROGRAM FOR VETERANS OF WORLD WAR II

The College of Arts and Sciences, in accepting its responsibilities to the men and women in the Armed Forces, has planned for veterans* a coordinated program which conforms in general to the recommendations of the American Council on Education, the Armed Forces Institute, and the West Virginia State Board of Education. Accordingly this program, designed to meet the specific needs of veterans, provides for individual guidance and for appropriate educational placement based upon records of achievement, special abilities, and interests.

### GENERAL EDUCATIONAL DEVELOPMENT TEST

As an aid in securing proper placement, service men and women should supplement their records by requesting from the Armed Forces Institute the "General Educational Development Test." This test is based upon the warranted assumption that much is learned in the Armed Forces through travel, observation, study and use of special publications, library services, films and records, and many other educational experiences.

### REQUEST FOR REPORT OF EDUCATIONAL ACHIEVEMENT

Applicants for admission to the University should then obtain the "Request for Report of Educational Achievement" from the Armed Forces Institute, Madison 3, Wisconsin. When this form has been filled out properly and sent in to the Armed Forces Institute, an Official Report will be assembled describing each phase of the military training and experience of the applicant, and forwarded to the University for evaluation. The Testing and Accrediting Services of the Armed Forces Institute are free to all service personnel on active duty and veterans except officers. Army officers are required to pay a fee of two dollars ($2.00) for this service.

*For purposes of administration the term *veterans* refers to all former members of the Armed Forces—Army and Navy; WACS, WAVES, SPARS—and will also be construed to include former members of the Merchant Marine.

## REGISTRATION

The Official Report and a record of high-school and college work, if any, should, if possible, be in the hands of the Registrar not less than three weeks before registration day.

## ADVANCED STANDING

In addition to credit granted for work certified by the Armed Forces Institute or by colleges, the student may, upon application to the Entrance Committee, receive advanced standing in any course regularly offered in the University for which he can pass a proficiency test.

## SPECIAL STUDENTS

Veterans not interested in working for a degree may take any combination of courses for which they are qualified by registering as Special Students.

## REFRESHER COURSES

Returning veterans will not be segregated, but will become members of regular classes. However, if in some cases review or preparatory courses are needed to enable them to enter regular classes, such courses will be offered.

## THE CURRICULUM COMMITTEE ON VETERANS' EDUCATION

To implement this program the *Curriculum Committee on Veterans' Education,* appointed by the Dean of the College, is empowered, in dealing with veterans, to:

1. Grant a maximum of 8 semester hours' credit in basic military science and physical education service program to those who present evidence of having completed successfully the basic training courses in the Armed Forces. No additional work in military science or physical education will be required.

2. Allow additional credit in advanced military science and/or other specific subjects for training in officer or special technical schools.

3. Accept correspondence work done with duly accredited institutions of higher learning cooperating with the Armed Forces Institute for the amount of credit allowed by the institution with which the credit was earned.

4. Follow the regular policy of the American Council on Education in determining and recording credits for the Army specialized and Navy college-training programs.

5. Grant additional credits on the basis of tests administered or supplied by the Armed Forces Institute.

6. Approve courses of study, prepared by students in consultation with their advisers, when such courses of study require modification or elimination of certain requirements for the degree being sought.

7. Authorize, upon the basis of such tests as the Committee may deem advisable, the admission of those who have not completed high school.

# THE COURSES OF INSTRUCTION

## The General Introductory Courses

The four general introductory courses, which cut across departmental lines, are designed to give the student a broad general education. They are recommended especially for those students who have not yet chosen a field of specialization. They will also be found useful in providing a general knowledge of subjects not covered by the student's field of major interest and in providing a broader perspective for later concentration in certain fields. These courses may be taken by any lower-division student in the College of Arts and Sciences or, with the consent of the dean or adviser, by students in other colleges or schools of the University. The courses are also open to upper-division students, but such students may count honor points only at the rate of one honor point per credit hour.

### I. THE HUMANITIES

This course is designed to bring to the student's attention cross-sections of his civilization at those points where its development has been most significant. In accordance with this aim a substantial part of the course is its background of history, to which are added a survey of world literature, enough philosophy to acquaint the student with the principal thought patterns employed by Western man, the main developments in art and architecture, and some music.

The assigned readings constitute the most important feature of the course, in that they supply most of the factual material. Lectures are primarily for the purpose of orientation—to help the student interpret the readings. Lectures on art, architecture, and music are illustrated. Weekly discussion periods are also an important part of the course. In them students meet in small groups with an instructor, and an effort is made to help them understand the relation of the past to present-day problems. Through the aid of a syllabus, the course is shown in perspective in order that it may be better conceived as a whole.

**1, 2. General Introductory Courses in the Humanities.** I and II. 4 Hrs. per semester. Staff

### II. THE PHYSICAL SCIENCES

The Introductory Course in the Physical Sciences is intended to acquaint the student with the physical world in which he lives and has two main objectives: (1) to serve as an orientation course for those students who have not chosen their major field of interest, and (2) to present a broad general view of the physical sciences to students whose interests lie in other fields.

In its present form the course will carry four credit hours for each of two semesters. Two periods of each week will be devoted to formal lectures and desk demonstrations; one period a week will be used for discussion and quiz when the lecture sections will be divided into small groups; and one period a week will be devoted to laboratory demonstrations, museum displays, and field trips. Motion picture films will be used in connection with

certain phases of the course. The syllabus is designed to give a general view of the whole field of the physical sciences as well as serve as a guide for weekly lectures, readings, and discussions.

**1, 2. General Introductory Course in the Physical Sciences.** I and II. 4 Hrs. per semester. Staff

### III. THE SOCIAL SCIENCES

The general course in the social sciences is designed primarily for sophomores and is intended to give the student an understanding of the society in which he lives, with some indication of political, social, and economic trends which may alter this society in the future. It is based upon a plan of two lectures and one discussion period each week. At the discussion periods the content of the lectures for the week will be carefully analyzed, and concrete illustrations of principles expressed in the lectures will be studied.

For each lecture there will be certain required readings and a list of optional readings for students who desire to learn more about certain questions.

**1, 2. Our Changing Social Order.** I and II. 3 Hrs. per semester. A study of the most significant social, economic, and political problems facing the American people, as they attempt to preserve democracy in a world of totalitarianism. The course is designed for students in home economics, agriculture, engineering, physical education, music, laboratory sciences, and others desiring a general preparation for the responsibilities of democratic citizenship.

### IV. THE BIOLOGICAL SCIENCES

**1, 2. General Introductory Course in the Biological Sciences.** I and II. 4 Hrs. per semester.

## Art

Associate Professor PATTON

The department of art offers technical courses in drawing, painting, and design; a non-technical course in appreciation; and lecture courses in the history of the arts. Effort is made to provide for the needs of those interested in the cultural aspects of the arts, to meet the requirements of students planning further work of a technical nature, and to enable students in Education to meet the requirements for certification as art teachers.

For art majors the following lower-division program is recommended:

FIRST YEAR, FIRST SEMESTER: English **1** (3); foreign language (3); laboratory science (4); Humanities **1** (4); military science (1); physical education (1). Total, 16 hrs.

FIRST YEAR, SECOND SEMESTER: English **2** (3); foreign language (3); laboratory science (4); Humanities **2** (4); military science (1); physical education (1). Total, 16 hrs.

SECOND YEAR, FIRST SEMESTER: English **3** (3); foreign language (3); Art **11** (3); Art **30** (3); military science (2); physical education (1); elective (2). Total, 17 hrs.

SECOND YEAR, SECOND SEMESTER: English 4 (3); foreign language (3); Art 12 (3); military science (2); physical education (1); elective (5). Total, 17 hrs.

### COURSES OF INSTRUCTION

**11 or 111, 12 or 112. Representation.** I, II. 3 Hrs. per semester. Free-hand drawing.

**15, 115. Representation.** I, II. 2 Hrs. Scientific drawing. Free-hand drawing primarily for Pre-medical and Pre-dental students.

**113, 114. Representation.** I, II. 3 Hrs. per semester. Painting. PR: Art 11, 12.

**121, 122. Fundamentals of Design.** I, II. 3 Hrs. per semester.

**30 or 130. Appreciation of Art.** I or II. 3 Hrs. Enjoyment of architecture, painting, sculpture, and the minor arts.

**105, 106. Survey of Art.** I, II. 3 Hrs. per semester. History of art from prehistoric times to the present. Offered in 1945-46 and alternate years.

**109. Art of the Renaissance.** I. 3 Hrs.

**110. Modern Art.** II. 3 Hrs.

**151, 152.** I, II. 1 to 3 Hrs. per semester. Special problems.

## BOTANY AND ZOOLOGY

Professors STRAUSBAUGH,* REESE, SPANGLER, TAYLOR, and CORE; Associate Professor GRIBBLE; Assistant Professors AMMONS and ANDERSON; Instructor RITCHIE*

### CURRICULUM FOR BOTANY MAJORS

Courses in chemistry, physics, zoology, or geology may be selected by those botany majors who wish to minor in one of these fields (64 hours required in each division).

NOTE: Credit hours are shown in parentheses after course designations.

#### Lower Division

English composition (6); German (12); Botany 1 and 2 (or Biol. 1 and 2) (8); French (6); psychology (6); English literature (6); military science (6); physical education (2). Total required, 50 hrs.

Electives: Chemistry 1 and 2 (8); Botany 30 (4); Zoology 1 and 2 (8); Botany 31 (4). Total electives, 24 hrs.

#### Upper Division

Physics 1, 2, 3, and 4 (8); education (for teacher's certificate) (20); geology (6); Botany 211 (4) and 212 (4); 221 (4); 213 (2); 230 (2); 234 (4); 254 and 255 (2). Total required, 56 hrs.

Electives: Bacteriology 141 (4); genetics (3); Botany 222 (4). Total electives, 11 hrs.

*On leave, 1944-45.

## CURRICULUM FOR ZOOLOGY MAJORS

### Lower Division

FIRST YEAR: Biology **1** or Zoology **1** (4); Zoology **2** (4); Chemistry **1** or **3** (4), **2** or **4** (4); English **1** (3) and **2** (3); foreign languages (6); physical education (2); military science (2). Total, 32 hrs.

SECOND YEAR: Botany **1** (4); and **2** (4); Physics **1, 2, 3,** and **4** (8); foreign language (6); English **3, 4,** or **65** (3); Public Speaking **3** or **11** (3); History **1** and **2** (6); military science (4) or physical education (2).

### Upper Division

1. 18 to 24 hours selected from the following courses accepted in the major subject: Animal Pathology **102** and **206**; Cytology **210**; Entomology **102, 103, 104**; Genetics **221**; Zoology **105, 116, 118, 151, 207, 210, 230, 231, 232, 233, 234, 235, 236, 237, 238, 240, 250-255, 261S.**

2. A minor sequence of 9 to 12 hours of upper-division courses in some department closely related to the work of the major department.

3. Electives to complete a total for the four years of 128 hours.

## COURSES OF INSTRUCTION

### BIOLOGY

**1, 2. General Biology.** I and II. 4 Hrs. per semester. Staff

**350, 351, 352, 353. Seminar.** I and II. 1 Hr. per semester (4 Hrs. maximum). Messrs. Leach, Cartledge, and Reese

### BOTANY

#### Lower Division

**1, 2. General Botany.** I and II. 4 Hrs. per semester. Miss Ammons

**4. Elementary Botany.** II. 4 Hrs. PR: Biology 1. For students of Agriculture only. Staff

**21, 121. Plant Physiology.** I. 4 Hrs. Primarily for students in Forestry. Staff

**30 or 130. Systematic Botany.** II. 4 Hrs. Identification of seed plants and a study of their classification. Miss Ammons

**31 or 131. Plant Ecology.** I. 4 Hrs. Environmental relationships of plants. Miss Ammons

**32. Systematic Botany.** II. 2 Hrs. Primarily for students in Forestry. Miss Ammons

#### Upper Division

**211, 212. Plant Morphology.** I, II. 4 Hrs. Development and structure of plants. Mr. Spangler

**213. Plant Anatomy.** I. 2 Hrs. PR: Botany 2 and preferably 30 or 130. Miss Ammons

**221. Plant Physiology.** I. 4 Hrs. Functions of plants. PR: Biology 1 or Botany 1 and 2, and a general course in chemistry. Staff

**222. Advanced Plant Physiology.** II. 4 Hrs. PR: Botany 221; also course in general physics and organic chemistry. Staff

**230, 231. Advanced Systematic Botany.** I and II. 1 to 6 Hrs. (maximum). Choice of work in any groups of the plant kingdom. Staff

**234. Experimental Ecology.** II. 4 Hrs. PR: Biology 1 and Botany 131. Staff

**235S. Field Studies in Botany.** S1. 6 Hrs. Essentially physiographic ecology, planned for botany majors and to meet the needs of those who intend to teach or are teaching botany. The studies will be conducted in various interesting regions of the state and the entire time will be spent in the field. (Suspended for the duration.) Mr. Strausbaugh

**238. Bryology.** II. 2 Hrs. Identification of liverworts and mosses. Miss Ammons

**254, 255. Seminar.** I and II. 1 Hr. per semester. Current literature and history of botany. Staff

### Graduate Division

**380, 381, 382, 383, 384. Research.** I and II. 1 to 6 Hrs. Staff
For courses in plant pathology see page 100.

## ZOOLOGY

### Lower Division

**1. Invertebrate Zoology.** I. 4 Hrs. Mr. Reese and Staff

**2. Vertebrate Zoology.** II. 4 Hrs. PR: Biology 1 or Zoology 1. Mr. Reese and Staff

**3. General Zoology.** II. 4 Hrs. PR: Biology 1. For students in Agriculture and Forestry. Mr. Reese and Staff

**5 or 105. Ornithology.** II. 2 Hrs. Field and laboratory studies on the identification, migration, protection, nesting and food habits of birds. Mr. Brooks

**16 or 116. Economic Zoology.** II. 2 Hrs. Ways in which animals are useful or harmful to man. Mr. Reese

**20 or 120. Introduction to Human Parasitology.** II. 4 Hrs. PR: Zool. 1 and 2 or equivalent. Primarily for pre-medical students. Mr. Taylor

**51 or 151. Human Physiology.** II. 4 Hrs. Mr. Anderson

### Upper Division

**118. Methods of Zoology.** II. 3 Hrs. Theory and practice of making microscopic preparations, etc. PR: Zoology 2 or equivalent. Primarily for zoology majors. Mr. Taylor

**207. Vertebrate Embryology.** I. 4 Hrs. An introductory study of the development of vertebrates, based chiefly on the frog, fowl, and mammal. PR: Zoology 2. Mr. Reese

**210. Principles of Evolution.** II. 3 Hrs. Mr. Reese

**230. Advanced Osteology.** II. 2 Hrs. PR: Zoology 2. Alternate years. Mr. Gribble

**231. Comparative Anatomy.** I. 5 Hrs. Organs and systems of various vertebrates, together with other facts of interest concerning these animals. PR: Zoology 2 or equivalent. Mr. Gribble

232. **Comparative Neuro-Anatomy.** II. 2 Hrs. PR: Zoology 2 or equivalent. Alternates with Zoology 233. Mr. Gribble

233. **Advanced Comparative Anatomy.** II. 3 Hrs. PR: Zoology 231. Alternates with Zoology 232. Mr. Gribble

235. **Advanced Invertebrate Zoology.** II. 3 Hrs. PR: Zoology 2. Mr. Taylor

236. **Animal Behavior.** I. 3 Hrs. PR: Zoology 2. Alternates with Zoology 237. Mr. Taylor

237. **Animal Ecology.** I. 3 Hrs. PR: Zoology 2. Alternates with Zoology 236. Mr. Taylor

238. **Comparative Physiology.** I. 4 Hrs. PR: Zoology 2. Mr. Anderson

240. **Seminar.** I and II. 1 Hr. Current Literature. For seniors and graduate students Mr. Reese and Mr. Taylor

250, 251, 252, 253, 254, 255. **Advanced Zoology.** I and II. 1 to 4 Hrs. Courses in zoology adapted, as far as possible, to needs of individual students. Staff

261S. **Field Zoology.** SI. 6 Hrs. Primarily for zoology majors and for those who teach or intend to teach zoology. This course aims to familiarize the student with the animal life of the state in its natural surroundings and includes the collection, identification and classification, and study of habits of the various forms found in this region. PR: Zoology 2 or equivalent. (Suspended for the duration.) Mr. Taylor

**Graduate Division**

380, 381, 382, 383, 384. **Research.** I and II. 1 to 6 Hrs. Staff
For courses in entomology, genetics, and animal pathology see the courses in agriculture, page 93 ff.

## Chemistry

Professors CLARK, JACOBSON, SAMUEL MORRIS, HUBERT HILL, DUSTMAN, DAVIES, and COLLETT; Associate Professors DEATRICK and LAZZELL; Assistant Professor GIBSON

Chemistry 1, 2, and 9; or Chemistry 3 and 4 are prerequisite to all courses in chemistry. Chemistry 5, 6, 233, 238, 260, and 261; Mathematics[4] 107 and 108; minimum one year of Physics[5] are required of candidates for the A. B. degree who major in chemistry. Exceptions are sometimes made for students entering with advanced standing.

Students entering the University with the intention of studying chemistry as a profession leading to a degree in the College of Arts and Sciences, with major in chemistry, should take Mathematics 3 and 4 and Chemistry 3 during the first semester of their first year.

A deposit is required of all students who take laboratory courses.

[4]If mathematics is elected as a minor, an additional 3-hour course beyond calculus (usually Differential Equations) is required.

[5]Physics 105, 106, 107, and 108 may count as a minor. If Physics 1, 2, 3, and 4 are offered, nine additional upper-division hours in physics are required to absolve the minor.

## BACHELOR OF SCIENCE IN CHEMISTRY

The requirements for the Bachelor of Science in Chemistry degree are essentially the same as the requirements for the Bachelor of of Arts degree with the major in chemistry for all non-chemical courses, except that a definite requirement for calculus is established. The distinction lies mainly in the extra chemistry (elective) requirements.

| Freshman | Hrs. | Sophomore | Hrs. | Junior | Hrs. | Senior | Hrs. |
|---|---|---|---|---|---|---|---|
| Chem. 3 & 4 | 8 | Chem. 5 | 4 | Chem. 233 | 5 | Chem. 260 | 5 |
| English | 6 | Chem. 6 | 5 | Chem. 238 | 5 | Chem. 261 | 5 |
| Foreign lang. | 6 | Foreign lang. | 6 | Calculus 108 | 4 | Chem. 251, 252 (Ind. Chem.) | 6 |
| Mathematics 3 | 4 | Math. 5 | 4 | Chem. electives | 6 | Chem. electives | 6 |
| Mathematics 4 | 2 | Math. 107 | 4 | Other electives | 4 | Other electives | 11 |
| Electives | 4 | Electives (not chemistry) | 8 | Physics 105, 106 | 5 | | |
| Physical Ed. | 2 | Military | 4 | Physics 107, 108 | 5 | | |
| Military | 2 | | | | | | |
| | 34 | | 35 | | 34 | | 33 |

## COURSES OF INSTRUCTION[1]

### Lower Division

1. **General Chemistry**[2] I, II. 4 Hrs. Recommended for students in the College of Arts and Sciences and the College of Education. Primarily for freshmen. Mr. Morris

2. **General Chemistry.** I, II. 4 Hrs. Recommended for students in the College of Arts and Sciences and the College of Education. Primarily for freshmen. PR: Chemistry 1 or equivalent. Staff

3. **Inorganic Chemistry.**[3] I, II. 4 Hrs. Required of students in the College of Agriculture, including home economics, the College of Engineering, pre-medical students, and pharmacy students. Primarily for freshmen. Mr. Morris

4. **Inorganic Chemistry.**[1] I, II. 4 Hrs. Required of students of the College of Agriculture, College of Engineering, pre-medical students, and pharmacy students. Primarily for freshmen. PR: Chemistry 3. Staff

5 **or 105. Qualitative Analysis.** I. 2 or 4 Hrs. Chem. 9 may either precede or accompany this course. Required of students whose major is chemistry, and pharmacy students. Two lectures and two three-hour laboratory periods. Engineering students only may take this course for 2 hours' credit. PR: Chemistry 1, 2, and 9; or Chemistry 3 and 4. Mr. Hill and Mr. Gibson

6 **or 106. Quantitative Analysis.** II. 3 to 5 Hrs. Chemistry 5 should precede this course wherever possible. Required of students whose major is chemistry, mining engineering, and pharmacy. PR: Chemistry 1, 2, and 9, or 3 and 4. Mr. Hill and Mr. Gibson

[1]Chemistry 1, 2, and 9, or Chemistry 3 and 4 are prerequisite to all other courses in chemistry. Three-year and four-year pre-medical students are referred to page 120 for outline of required courses. For courses in biochemistry see page 246 and for courses in pharmaceutical chemistry, page 263. A deposit is required of all students who take laboratory courses.

[2]Student's desiring to take Chemistry 1 in the second semester may substitute Chemistry 3 if Chemistry 1 is not offered.

[3]Students entering with the idea of majoring in chemistry may take Chemistry 3 and 4 instead of Chemistry 1, 2, and 9.

**9. Inorganic Chemistry.** I. 2 Hrs. Required of students who have taken Chemistry 1 and 2 and who desire further work in chemistry. Mr. Morris

**10. Quantitative Analysis.** I. 2 Hrs. Primarily for engineering students. PR: Chemistry 3 and 4. Mr. Hill and Mr. Gibson

**15 or 115. Quantitative Analysis.** I, II. 3 Hrs. For pre-medical and chemical engineering students. Chemistry 9 may accompany this course. PR: Chemistry 3 and 4, or 1, 2, and 9. Mr. Hill and Mr. Gibson

**31 or 131. Organic Chemistry.** I. 4 Hrs. For students in agriculture and home economics. Chemistry 9 may accompany this course. PR: Chemistry 4 or 2 and 9. Mr. Dustman

**36 or 136. Organic Chemistry.** II. 6 Hrs. Required of pre-medical and pharmacy students. PR: for pre-medical students: Chemistry 15 and 63. PR: for pharmacy students Chemistry 6. Mr. Lazzell

**37 or 137. Chemistry of Powder and Explosives.** I, II. 3 Hrs. Credit for degree by non-chemistry majors. PR: four semesters of chemistry, including quantitative analysis. Staff

**63 or 163. Physical Chemistry.** I. 3 Hrs. Required of pre-medical students. Chemistry 9 may accompany this course. PR: Chemistry 4, or Chemistry 2 and 9. Mr. Davies

### Upper Division

**107. Quantitative Analysis.** II. 2 Hrs. Continuation of Chemistry 15 and 115. Mr. Hill and Mr. Gibson

**108. Quantitative Analysis.** I. 3 Hrs. PR: Chemistry 6, Physics 3 and 4, and Mathematics 5. Mr. Gibson

**111. Synthetic Inorganic Chemistry.** I, II. 4 Hrs. PR: Chem. 6 or 106. Mr. Morris

**141, 143. Assigned Topics.** I. 1 to 5 Hrs. Staff

**142, 144. Assigned Topics.** II. 1 to 5 Hrs. Staff

**162. The Chemistry of Colloids.** II. 4 Hrs. Required of four-year pre-medical students. Mr. Davies

**212. Micro-qualitative Analysis.** I or II. 2 or 3 Hrs. PR: Organic chemistry. Mr. Hill and Mr. Gibson

**214. Organic Qualitative Analysis.** I or II. 3 Hrs. PR: Chemistry 238. Mr. Jacobson

**218. Dairy Chemistry.** I. 3 Hrs. For students in the College of Agriculture. PR: for undergraduates, Chemistry 31; for graduates, Chemistry 6 or 15, and Chemistry 31 or 233. Mr. Dustman

**233. Organic Chemistry.** I. 5 Hrs. Required of students who major in chemistry, of students in chemical and mining engineering. PR: Chemistry 6. Mr. Clark and Mr. Lazzell

**238. Organic Chemistry.** II. 4 or 5 Hrs. PR: Chemistry 233. Mr. Clark and Mr. Lazzell

**247. Stereochemistry.** I. 2 Hrs. Open to seniors. PR: Chemistry 238. Mrs. Deatrick

**251. Industrial Inorganic Chemistry.** I. 3 Hrs. Mr. Clark

252. **Industrial Organic Chemistry.** II. 3 Hrs. Mr. Clark

260. **Physical Chemistry.** I. 3 to 5 Hrs. Required of chemistry majors and chemical engineering students, the latter for 3 hours' credit. PR: Chemistry 233, Physics 4, and Mathematics 108. Mr. Collett

261. **Physical Chemistry.** II. 3 to 5 Hrs. Required of chemical engineering students and chemistry majors. PR: Chemistry 260. Mr. Collett

274. **History of Chemistry.** II. 2 Hrs. Open to seniors. PR: Chemistry 6, or equivalent, and organic chemistry. Mr. Hill and Mrs. Deatrick

277. **Synthetic Drugs.** I or II. 2 Hrs. PR: Chemistry 238 or equivalent. Mr. Lazzell

### Graduate Division

316. **Advanced Inorganic Chemistry.** II. 2 Hrs. PR: Chemistry 261. Mr. Morris

317. **Modern Plastics.** I or II. 2 or 3 Hrs. Mr. Jacobson

343. **Advanced Organic Chemistry.** I. 4 Hrs. PR: Chemistry 238 or equivalent. Mr. Lazzell

345. **Theories of Organic Chemistry.** II. 2 Hrs. PR: Chemistry 343. Mr. Lazzell

367. **Advanced Physical Chemistry.** I. 3 Hrs. PR: Chemistry 261. Mr. Davies

368. **Advanced Physical Chemistry.** II. 3 Hrs. PR: Chemistry 367. Mr. Davies

380. **Electrochemistry.** I or II. 3 Hrs. PR: Chemistry 238 and 261. Mr. Collett

383. **Advanced Quantitative Analysis.** I or II. 3 Hrs. PR: Chemistry 6, 238, 261. Mr. Jacobson and Mr. Hill

389. **Chemical Thermodynamics.** I. 2 Hrs. PR: Chemistry 261 and Mathematics 208. Offered in 1942-43 and alternate years. Mr. Gibson

390. **Chemical Thermodynamics.** II. 2 Hrs. Chemistry 389. Offered in 1942-43 and alternate years.

391, 392. **Journal Meeting and Seminar.** I and II. 1 Hr. per semester. Required of students working for graduate degrees with major in chemistry. Recommended as a minor for students from other departments. Mr. Clark and Staff

395, 396. **Special Topics.** I and II. 1 to 3 Hrs. per semester. Chemistry of the carbohydrates, organic nitrogen compounds, the phase rule, dyes and dye intermediates, food analysis, study of chemical literature as preparation for research, chemical microscopy and crystallography, valence, and molecular structure are suggested topics. Staff

397, 398, 399A, 399B. **Research.** I and II. 1 to 6 Hrs. per semester. 6 Hrs. required for the Master's degree. More than 6 Hrs. each semester may be carried by candidates for a higher degree. Staff

## Classics

Professor BROUZAS

The department of classics offers courses in the Greek and Latin languages and in classical civilization. Courses in the department are intended

not only to give students a thorough knowledge of the Greek and Latin languages and literature, but also to acquaint them with the classical culture in general. A student with major in Latin should plan to include at least 6 hours of Greek in his course, preferably in the sophomore year.

Courses suggested for classics majors with English as a second teaching field for certification in West Virginia:

NOTE: Credit hours are shown in parentheses after course designations.

FIRST YEAR, FIRST SEMESTER: English 1 (3) and 3[1] (3); Latin (according to preparation) (3); laboratory science[2] (4); physical education (1); elective (2). Total, 16 hrs.

FIRST YEAR, SECOND SEMESTER: English 2 (3) and 4[1] (3); Latin, (3); laboratory science[2] (4); physical education (1); elective (2). Total, 16 hrs.

SECOND YEAR, FIRST SEMESTER: English 65[1] (3); Latin (3); Greek 1 (3); sociology or economics (3); physical education (1); elective (3). Total, 16 hrs.

SECOND YEAR, SECOND SEMESTER: Journalism 15[1] (3); Latin (3); Greek 2 (3); sociology or economics (3); public speaking[1] (3); elective (2). Total, 17 hrs.

## COURSES OF INSTRUCTION

### LATIN

#### Lower Division

1. **Elementary Latin.** I. 3 Hrs. An intensive course in the elements of the Latin language, consisting of the completion of a standard beginner's book and a simple elementary reader.

2. **Elementary Latin.** II. 3 Hrs. A continuation of Latin 1, consisting of the study of a standard second-year book.

3. **Intermediate Latin.** I. 3 Hrs. Selections from Caesar, Aulus Gellius, Nepos, and from other authors of comparable ease, designed to prepare students to read the orations of Cicero and other Latin of similar difficulty. PR: Latin 2 or two units of high-school Latin.

4. **Cicero's Orations.** II. 3 Hrs. PR: Latin 3, or 2 units of high-school Latin.

5. **Latin for Law Students: Selections from Legal Latin and the Institutes of Justinian.** II. 3 Hrs. PR: Latin 3, or 2 units of high-school Latin.

6. **Vergil's Aeneid.** II. 3 Hrs. PR: Latin 4, or 3 units of high-school Latin.

12. **Selections from Roman Prose.** I. 3 Hrs. Selections from Roman prose literature from Cato to the end of the Silver Latin period. PR: Latin 4 and 6.

14. **Roman Comedy.** I. 3 Hrs. Platus, Captivi, or Menaechmi; Terence, Adelphoe, or Andria. PR: Latin 4 and 6, or 4 units of high-school Latin.

[1]Students wishing to offer social science for certification may substitute history for this course.

[2]Students who wish to have social studies as the second teaching field may elect geology for the laboratory science.

21. **Roman Letter Writing.** II. 3 Hrs. Selections from the letters of Cicero, Pliny, Marcus Aurelius, and Fronto. PR: Latin 4 and 6, or 4 units of high-school Latin.

22. **Selections from Roman Poetry.** I. 3 Hrs. Selections from the elegiac, lyric, and iambic poets and from Martial's epigrams. PR: Latin 4 and 6, or equivalent.

23. **Livy and Cicero.** II. 3 Hrs. Selections from Livy, books 21 and 22; Cicero's **De Senectute** or **De Amicitia.** PR: Latin 14 and 21, or equivalent.

24. **The Lyric and Bucolic Poets.** II. 3 Hrs. Selections from Horace's Odes and Epodes; from Catullus and other poets; selections from the Bucolics of Vergil and Calpurnius.

25. **Latin Composition.** II. 3 Hrs. A review of the principles and syntax of the Latin language, and practice in writing simple Latin. PR: Latin 14 and 21, or equivalent.

### Upper Division

130. **Leadership in Classical Club.** II. 2 Hrs. Materials for enriching, vivifying, and making Latin concrete; Latin posters, scrap books, Latin derivatives in English and modern languages, Latin playlets, Latin mottoes, proverbs, mythological allusions, etc. PR: Four years of high-school Latin or twelve hours of Latin taken in college. Offered every other year. Approved for high-school certification in co-curricular activity.

201. **The Story and Novel.** I. 3 Hrs. The story and novel from Homer to Apuleius. Select reading from Petronius and Apuleius. PR: Latin 12, 14, 21, 22, or equivalent.

202. **Drama.** II. 3 Hrs. The ancient drama, its origin, and development. Select dramas. PR: Latin 12, 14, 21, 22, or equivalent.

203. **Roman Oratory.** II. 3 Hrs. Selections from Cicero's works on oratory and from Quintilian. Select orations of Cicero. PR: Latin 12, 14, 21, and 24, or equivalent.

227. **Vulgar Latin—Prose and Verse.** I. 3 Hrs. Selections from old Latin literature and from late and mediaeval Latin writers. Lectures on the history of the Latin language, and the formation of the Romance languages. PR: Latin 12, 14, 21, and 24, or equivalent.

231. **Satire.** II. 3 Hrs. Horace, Satires and Epistles; selections from Juvenal and Persius. PR: Latin 12, 14, 21, and 22, or equivalent.

234. **History.** I. 3 Hrs. Selections from Livy, and Tacitus, Agricola, or Annals; Suetonius, Life of Julius or Augustus, Sallust, Catiline. PR: Latin 12, 21, and 24, or equivalent.

235. **Epic.** I. 3 Hrs. Vergil's **Aeneid** and the later Epic. PR: Latin 12, 22, and 24, or equivalent.

236. **Philosophy.** II. 3 Hrs. Cicero's **Tusculan Disputations** or **De Officiis;** Seneca's **Dialogues** and **Epistles.** PR: Latin 12, 21, 22, and 24, or equivalent.

### Graduate Division

381, 382. **Seminar.** I and II. 3 Hrs. per semester.

383, 384. Thesis.

### CLASSICAL CIVILIZATION[1]

#### Upper Division

237. **Greek and Roman Religion and Art.** I. 3 Hrs. A study of the Greek and Roman religious ideas and myths, with particular emphasis on their influence upon the art and literature of the ancient and the modern world.

239. **Greek and Roman Life and Thought.** I. 3 Hrs. A survey of Greek and Roman culture and thought as reflected in classical literature. PR: Greek 1 and 2, Latin 12 and 22, or equivalent.

### GREEK

#### Lower Division

1. **Elementary Greek.** I. 3 Hrs. A course in the elements of the Greek language. Offered in 1943-44 and alternate years.

2. **Selections from Greek Literature (Prose).** II. 3 Hrs.

3. **Selections from Greek Literature (Poetry).** II. 3 Hrs.

## Economics and Business Administration

Professors TOWER and DADISMAN; Associate Professor KELLER;* Assistant Professors ROBERTS, JOHNSON, and WHERRY; Instructor COUTTS

The program of the Department of Economics and Business Administration has been designed to meet the educational needs of students who are preparing for postwar careers in commerce and industry as well as for that group who, after a period of graduate training, will enter the professional practice of economics. It has been so planned as to require a minimum of specific subject matter and at the same time to give to the student as wide a latitude of choice in making his course arrangements as is consistent with a sound business training.

While every business man should become proficient in the techniques and practices of his profession, it is equally important that he be fitted to assume the responsibilities of intelligent citizenship and the social obligations which his position will entail. At the same time he should acquire a broad general culture in order better to understand and appreciate those enduring values upon which modern civilization rests.

### DEGREES AND REQUIREMENTS FOR GRADUATION

The department offers courses leading to the A. B. degree with a major in economics, and the B. S. degree with a major in business administration. To be recommended for either degree by the department, a student must have demonstrated that the quality of his work is at least equal to the minimum standards for graduation set by the department and the University. In ad-

[1]These courses are offered as being of cultural value to all students. They present a picture of a cross-section of the Greek and Roman society, life, manners, thought, literature, art, science, and law. The study of the influence of classical antiquity upon the subsequent periods prepares one for a better appreciation of modern civilization. Each course may be taken separately, if so desired.

*On leave, 1944-45.

dition he must complete 128 college hours for the A. B. degree, or 132 college hours for the B. S. degree. He must also complete 9 or 12 college hours of upper-division work for a minor in another field approved by his adviser.

An economics major consists of no fewer than 24 upper-division hours in economics and business administration. A business-administration major requires the completion of no fewer than 30 upper-division hours in economics and business administration. Candidates for the A. B. degree with a major in economics may not carry more than a total of 40 semester hours of work in the department for credit, while those seeking the B. S. degree with a major in business administration are allowed to complete a maximum of 54 hours in economics and business administration for credit. Candidates for both degrees must complete satisfactorily Business 3, Business Mathematics, and Economics 1 and 2, Principles of Economics, before they undertake further work in the department. In addition, candidates for the B. S. degree must receive credit for Business 5 and 6, Principles of Accounting, before they are permitted to carry advanced courses in business administration. Candidates for both degrees must complete no fewer than 54 college hours at the upper-division level out of the total number of hours required for graduation.

## FACULTY ADVISERS

Each degree candidate will be assigned to a faculty adviser in the field in which the student plans to do his major work. However, all programs of study are subject to final approval by the head of the department.

## SUGGESTED CURRICULUM FOR THE A. B. DEGREE WITH A MAJOR IN ECONOMICS

The following four-year curriculum in economics is offered as a guide to advisers and students in program planning:

**First Year**

| *First Sem.* | *Hrs.* | *Second Sem* | *Hrs.* |
|---|---|---|---|
| English 1 | 3 | English 2 | 3 |
| Foreign lang. | 3 | Foreign lang. | 3 |
| History | 3 | History | 3 |
| Psychology 3 | 4 | Psychology 4 | 4 |
| Library Sci. 1 | 2 | Business 3 | 2 |
| Physical educ. | 1 | Physical educ. | 1 |
| Military sci. (men) | 1 | Military sci. (men) | 1 |
| Electives | 1-2 | Electives | 1-2 |
| | 18 | | 18 |

**Second Year**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| English 13 | 2 | Business 7 | 3 |
| Economics 1 | 3 | Economics 2 | 3 |
| Foreign lang.** | 3 | Foreign lang.** | 3 |
| Polit. Sci. 5 | 3 | Polit. Sci. 6 | 3 |
| Military sci. (men) | 2 | Military sci. (men) | 2 |
| Physical educ. (women) | 1 | Physical educ. (women) | 1 |
| Electives | 5-9 | Electives | 4-8 |
| | 18 | | 18 |

**Third Year**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Economics 111 | 3 | Economics 114 | 3 |
| Economics 131 | 3 | Economics 132 | 3 |
| Philosophy 104 | 3 | Economics 238 | 3 |
| Sociology 101 | 3 | Minor subject | 6 |
| Minor subject | 3 | Electives | 3 |
| Electives | 3 | | |
| | 18 | | 18 |

**Fourth Year**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Economics 200 | 3 | Economics 240 | 3 |
| Economics 233 | 3 | Economics 262 | 3 |
| Sociology 240 | 3 | Business 242 | 3 |
| Geography 109 | 3 | Polit. sci. 222 | 3 |
| Electives | 6 | Electives | 6 |
| | 18 | | 18 |

**See University language requirements.

In addition it is recommended that the student enroll for Public Speaking 11 and Geography 7 not later than the second semester of his sophomore year.

## SUGGESTED CURRICULUM FOR THE B. S. DEGREE WITH A MAJOR IN BUSINESS ADMINISTRATION

The department offers the following major fields leading to the degree of B. S. with a major in business administration:

Public Administration
Banking and Finance
Management
Secretarial
Marketing and Merchandising
Accounting

### The Lower-division Program

The suggested program for the lower-division student who plans to do his major work in business administration is, with one exception, like that of the candidate for the A. B. degree with a major in economics. The business-administration major must complete Business 5 and 6, Principles of Accounting, before he can be admitted to certain upper-division courses in that field.

### Program for the Upper Division

### PUBLIC ADMINISTRATION CURRICULUM

| Third Year | | | | Fourth Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Business 101 | 3 | Business 208 | 3 | Economics 131 | 3 | Economics 132 | 3 |
| Geography 109 | 3 | Business 281 | 2 | Business 204 | 3 | Business 245 | 3 |
| Economics 200 | 3 | Economics 238 | 3 | Business 251 | 2 | Business 252 | 2 |
| Philosophy 104 | 3 | Economics 262 | 3 | Psychology 115 | 3 | Sociology 240 | 3 |
| Sociology 101 | 3 | Psychology 132 | 3 | Pol. Sci. 207 | 3 | Pol. Sci. 222 | 3 |
| Polit. Sci. 107 | 3 | Electives | 4 | Pol. Sci. 209 | 3 | Pol. Sci. 208 | 3 |
| | | | | Electives | 1 | Electives | 1 |
| | 18 | | 18 | | 18 | | 18 |

### MANAGEMENT CURRICULUM

| Third Year | | | | Fourth Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Business 101 | 3 | Business 142 | 3 | Business 133 | 3 | Business 245 | 3 |
| Business 121 | 3 | Business 228 | 2 | Business 204 | 3 | Business 281 | 2 |
| Business 141 | 3 | Economics 114 | 3 | Psychology 115 | 3 | Economics 262 | 3 |
| Economics 131 | 3 | Economics 132 | 3 | Sociology 257 | 3 | Soc. Work 270 | 3 |
| Econ. Geog. 109 | 3 | Minor subject | 6 | Minor subject | 3 | Psychology 132 | 3 |
| Sociology 101 | 3 | Electives | 1 | Electives | 3 | Electives | 4 |
| | 18 | | 18 | | 18 | | 18 |

## BANKING AND FINANCE CURRICULUM

| Third Year | | | | Fourth Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Economics 111 | 3 | Economics 114 | 3 | Economics 201 | 3 | Economics 238 | 3 |
| Economics 131 | 3 | Economics 132 | 3 | Business 133 | 3 | Economics 244 | 2 |
| Economics 241 | 3 | Business 228 | 2 | Business 156 | 3 | Economics 262 | 3 |
| Business 121 | 3 | Minor subject | 6 | Psychology 115 | 3 | Psychology 132 | 3 |
| Minor subject | 3 | Electives | 4 | Geography 109 | 3 | Electives | 7 |
| Philosophy 104 | 3 | | | Electives | 3 | | |
| | 18 | | 18 | | 18 | | 18 |

## SECRETARIAL CURRICULUM

| Third Year | | | | Fourth Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Business 101 | 3 | Business 127 | 2 | Business 121 | 3 | Business 224 | 3 |
| Business 141 | 3 | Business 144 | 2 | Business 133 | 3 | Business 245 | 3 |
| Business 143 | 2 | Business 146 | 4 | Business 147 | 3 | Psychology 132 | 3 |
| Business 145 | 4 | Minor subject | 6 | Psychology 115 | 3 | Electives | 9 |
| Minor subject | 3 | Electives | 4 | Geography 109 | 3 | | |
| Electives | 3 | | | Electives | 3 | | |
| | 18 | | 18 | | 18 | | 18 |

## MARKETING AND MERCHANDISING CURRICULUM

| Third Year | | | | Fourth Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Business 121 | 3 | Business 122 | 3 | Business 125 | 3 | Business 128 | 3 |
| Business 141 | 3 | Business 127 | 2 | Business 133 | 3 | Business 224 | 3 |
| Economics 131 | 3 | Economics 114 | 3 | Economics 173 | 3 | Business 242 | 3 |
| Minor subject | 3 | Minor subject | 6 | Psychology 115 | 3 | Business 228 | 2 |
| Philosophy 104 | 3 | Electives | 1 | Geography 109 | 3 | Electives | 8 |
| Electives | 3 | Psychology 132 | 3 | Electives | 3 | | |
| | 18 | | 18 | | 18 | | 18 |

## ACCOUNTING CURRICULUM

| Third Year | | | | Fourth Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Business 101 | 3 | Business 102 | 2 | Business 133 | 3 | Business 206 | 2 |
| Business 121 | 3 | Business 142 | 3 | Business 204 | 3 | Business 212 | 2 |
| Business 141 | 3 | Economics 114 | 3 | Business 207 | 2 | Business 208 | 2 |
| Economics 131 | 3 | Minor subject | 6 | Psychology 115 | 3 | Business 281 | 2 |
| Philosophy 104 | 3 | Electives | 4 | Geography 109 | 3 | Psychology 132 | 3 |
| Minor subject | 3 | | | Economics 111 | 3 | Electives | 7 |
| | | | | Electives | 1 | | |
| | 18 | | 18 | | 18 | | 18 |

## COURSES OF INSTRUCTION

## ECONOMICS

### Lower Division

1. **Principles of Economics.** I, II. 3 Hrs. Organization of economic activity; elementary principles of economic activity. Mr. Dadisman

2. **Principles of Economics.** I, II. 3 Hrs. Economics 1 and 2 are prerequisite to upper-division courses. Mr. Roberts

30. **Fundamentals of Economics.** For engineers. I. 3 Hrs. Mr. Wherry

### Upper Division

103. **Economics and Accounting.** I. 3 Hrs. Of primary importance to engineering students. Mr. Wherry

111. **Money and Banking.** I. 3 Hrs. Our system of monetary and banking arrangements, viewed in relation to functioning of the economic system as a whole. PR: Econ. 1 and 2. Mr. Tower

114. **Corporation Finance.** II. 3 Hrs. The corporate factor in present-day economic life with particular reference to its financial aspects. PR: Econ. 1 and 2 or permission of instructor. Mr. Tower

131. **Business Statistics.** I. 3 Hrs. Methods of collecting, presenting, analyzing, and interpreting business data, with special emphasis on index numbers, trend fitting, seasonal corrections, and correlation. PR: Econ. 1 and 2. Mr. Tower

132. **Problems in Statistics.** II. 3 Hrs. Sampling theory, complex trends, multiple and partial correlation; statistical research. PR: Econ. 131 and consent of instructor. Mr. Tower

173. **Economics of Consumption.** I. 3 Hrs. Place of consumer in modern society; business practices and policies affecting everyday interests of consumer; consumer problems and their solution. PR: Econ. 1 and 2 or consent of instructor. Mr. Tower

200. **Land Economics.** I. 3 Hrs. A land-policies course; characteristics, utilization, and conservation of urban, rural, mineral, forest, and recreational land. PR: Econ. 1 and 2. Mr. Dadisman

201. **Real Estate.** II. 3 Hrs. Principles and practices of the business of real estate. PR: Econ. 200 or consent of instructor. Mr. Dadisman

233. **Postwar Economic Problems.** I. 3 Hrs. Economic policies and practices of modern nations in time of war; problems of postwar reconstruction. PR: Econ. 1 and 2. Mr. Tower

238. **Economic Theory.** II. 3 Hrs. Intended primarily to afford training and experience in use of those analytical methods and techniques which are specially helpful in dealing with fundamental economic problems. PR: Econ. 1 and 2. Staff

240. **Labor Relations.** II. 2 or 3 Hrs. History of modern labor movements; analysis of economic and social problems arising from relations between capital, labor, and the state. PR: Econ. 1 and 2. Mr. Tower

241. **Transportation.** I. 3 Hrs. Nature, history, and problems of inland transportation, with special reference to the United States. PR: Econ. 1 and 2. Mr. Dadisman

244. **Public Utilities.** II. 2 Hrs. Development of regulation; economics of valuation, rate-making, and "Federal Power Policy." PR: Econ. 1 and 2. Staff

†246. **Air Transport Administration.** 3 Hrs. Mr. Wherry

262. **Public Finance.** II. 3 Hrs. Fiscal organization and administration of modern governments; public expenditures; governmental revenues; problems of public debt. PR: Econ. 1 and 2. Mr. Tower

### Graduate Division

311. **Problems in Land Economics.** I. 2 Hrs. PR: Econ. 200. Mr. Dadisman

315. **Transportation Problems.** I. 2 Hrs. PR: Econ. 241. Mr. Dadisman

325. **Monetary and Banking Problems.** II. 2 Hrs. Individual graduate study. PR: Econ. 111. Mr. Tower

328. **Problems in Corporation Finance.** II. 2 Hrs. Individual graduate study. PR: Econ. 114. Mr. Tower

351. **History of Economic Thought.** I. 3 Hrs. Economic ideas in the perspective of their historic development. PR: Econ. 238. Staff

352. **Advanced Economic Theory.** II. 3 Hrs. Recent developments in economic theory such as those relating to imperfect competition, monetary problems, and collectivist economy. PR: Econ. 238. Staff

358. **Bibliography and Research.** II. 2 Hrs. Research methods, sources of information, techniques, devices, approaches, procedures, research analysis, and presentation of results. PR: consent of instructor. Mr. Dadisman

361. **Taxation.** I. 3 Hrs. Comparative study of taxes and tax systems. Particular emphasis upon tax structures of the Federal government and the State of West Virginia. PR: Econ. 262 or consent of instructor. Mr. Tower

362. **Taxation Seminar.** II. 3 Hrs. Selected problems in taxation involving considerable original research; current literature. PR: Econ. 361 or consent of instructor. Mr. Tower

373, 374. **Thesis.** I, II. 2 or 3 Hrs. per semester. Staff

390, 391. **Seminar in Economics.** I, II. 2 or 3 Hrs. per semester. Staff

## BUSINESS ADMINISTRATION

### Lower Division

3. **Business Mathematics.** I. 2 Hrs. Percentage relationship, application of percentage, properties of formulas, interest computations, and laws of equations. Miss Coutts

5. **Principles of Accounting.** I. 3 Hrs. Fundamental bookkeeping procedures and preparation of financial statements. Mr. Wherry

6. **Principles of Accounting.** II. 3 Hrs. Interpretation of commercial and industrial records. Uses which may be made of accounting data in operating business enterprises. PR: Business 5. Mr. Wherry

7. **Business Communications.** II. 3 Hrs. A study of the vocabulary and techniques of business writing as applied to various forms of research and reporting. Correct English usage in modern business forms and letters. PR: 8 hrs. of English composition. Miss Coutts

### Upper Division

**101. Analysis of Financial Statements.** I. 3 Hrs. Valuation of accounts, working capital, and profit and loss analysis, comparative statements, and source and application of funds. PR: Business 6. Mr. Wherry

**102. Accounting Problems.** II. 2 Hrs. As applied to partnerships, corporations, branch offices, subsidiaries, and foreign trade. PR: Business 101. Mr. Wherry

**110. Accounting for Engineers.** II. 2 Hrs. Of primary importance to engineering students. Mr. Wherry

**121. Elements of Marketing.** I. 3 Hrs. The economic functions of marketing, principles of marketing industrial and consumer goods, contemporary marketing problems. PR: Econ. 1 and 2. Mr. Roberts

**122. Marketing of Manufactured Goods.** II. 3 Hrs. Case method applied to modern problems of sales management. Particular attention is given to manufactured goods. PR: Business 121. Mr. Roberts

**125. Retailing.** I. 3 Hrs. Retail store organization, control, and other operating problems and policies in present-day retail outlets. PR: Business 121 and 122. Mr. Roberts

**127. Salesmanship.** II. 2 Hrs. Essentials of creative salesmanship and art of selling with practical illustrations and demonstrations. Mr. Wherry

**128. Advertising.** II. 3 Hrs. Techniques and procedure of local and national advertising using the problem approach. Mr. Roberts

**133. General Insurance.** I. 3 Hrs. Theory of risk and its application to insurance. Principles underlying all forms of insurance—life, property, casualty, fire surety. PR: Econ. 1 and 2. Mr. Wherry

**141, 142. Business Law.** I, II. 3 Hrs. per semester. Fundamentals of the law of contracts, agency, negotiable instruments, partnership, corporations, and sales as applied to business situations. Not open to students preparing for law degree. Mr. Tower

**143, 144. Typewriting.** I, II. 2 Hrs. per semester. Instruction in formation of accurate typing habits. Miss Coutts

**145. Shorthand.** I. 4 Hrs. Gregg shorthand for beginners. Miss Coutts

**146. Shorthand.** II. 4 Hrs. Intensive review of fundamental principles of Gregg shorthand; development of accurate writing principles and ability to transcribe business and manuscript materials. Miss Coutts

**147. Secretarial Training and Office Practice.** I. 3 Hrs. Supervised practice in operation of calculating, duplicating, and transcribing machines; study of representative filing systems, proofreading, and business forms. Miss Coutts

**156. Banking.** I. 3 Hrs. Banking policies and practices of concern both to those who operate banks and to those who use their services. PR: Econ. 111. Mr. Tower

**204. Cost Accounting.** I. 2 Hrs. Application of labor, material, and burden costs to the product unit under job-order or process costing. PR: Bus. 101. Mr. Wherry

**206. Income-tax Accounting.** II. 2 Hrs. Preparation of income-tax returns from accounts of individuals, partnerships, and corporations. PR: Business 101. Mr. Wherry

**207. Auditing.** I. 2 Hrs. Duties and responsibilities of auditor; methods of verification of balance sheet and profit-and-loss accounts; working papers and schedules, audit reports, and certificates. PR: Business 101, 102, 204, 206, or consent of instructor. Mr. Wherry

**208. Municipal Accounting.** II. 3 Hrs. Principles of governmental accounting and fiscal administration. Accounting for funds. Revenues and expenditures. Assets and liabilities. Reporting. Federal accounting. Staff

**212. Accounting Systems.** II. 2 Hrs. Building accounting systems; journals and ledgers; types of accounting systems; account charts and manual of instruction; study of selected accounting systems. PR: Business 101. Mr. Wherry

**224. Credits and Collections.** II. 3 Hrs. Principles and practices of credit management with particular attention to mercantile credit. PR: Business 121. Mr. Roberts

**226. Industrial Purchasing.** II. 3 Hrs. Corporate and governmental procurement problems facing the modern purchasing executive. PR: Econ. 1 and 2. Mr. Roberts

**228. Sales Management.** II. 2 Hrs. Selection, training, compensating, and supervising of salesmen; sales control by means of quotas, sales budgets, properly balanced sales territories, and routes; sales promotion. PR: Business 121 or 127. Mr. Wherry

**242. Foreign Trade.** II. 3 Hrs. Development of trade among nations, theories of trade, policies, physical factors, trends, barriers, adjustment of theory and facts. PR: Econ. 2 and consent of instructor. Mr. Dadisman

**245. Personnel Administration.** II. 3 Hrs. Background and policies. Testing and records. Education and training. Employee incentives. Industrial democracy and social controls. Personnel problems in the postwar period. Staff

**251, 252. Business and the State.** I, II. 2 Hrs. per semester. Government in its role of adviser and umpire; analysis of governmental policies and practices affecting business. PR: Econ. 1 and 2. Mr. Roberts

**281. Business Management.** II. 2 Hrs. Principles of organization, system control, standards, research, public relations, and executive decisions, as applied to the modern business unit. PR: Econ. 1 and 2 and Business 5 and 6 or consent of instructor. Mr. Wherry

## English Language and Literature

Professors JOHNSON, DRAPER, and SMITH; Associate Professors CHAPPELL and CROCKER; Assistant Professors BISHOP, BRAWNER, PETTIGREW, and SAYRE; Instructors PAGE, REED, HATFIELD, ROBERTSON, and FRANKLIN

To be received as a major student in the department of English the student must have credit for the following lower-division courses, or their equivalent: English 3; English 4 or 5; English 13 or some other course in advanced composition;—in all, eight hours in addition to the general college requirement of six hours in English composition (English 1 and 2).

English 3 or English 4 is prerequisite to all advanced courses in English literature.

English 5 is prerequisite to all advanced courses in American literature.

A major student will usually be expected to complete at least 24 hours of upper-division courses in English. One course each in Shakespeare, Chaucer, History of the English Language, and Bible literature or world literature are normally included in this 24-hour requirement.

A major student will also be required to complete from 12 to 18 hours of college work in French, Latin, or German, depending upon the amount and character of his entrance credit in foreign language. At least 12 college hours must be offered in some one language.

Spanish will not be accepted as a single required language for English majors.

Six hours of English history, History 133 and 134 or their equivalent, are also ususally required of major students.

Public Speaking 3 or 11 is required of English majors, and a total of no less than 9 hours altogether should be offered in Journalism, Library Science, and Public Speaking. (9 hours in Public Speaking, or 6 hours in any one of the three).

Candidates for the degree of Master of Arts who have not taken English 230, 231, 234, and 235 or their equivalent as undergraduates must include these courses in their graduate program. Courses 224 and 291 are also usually required of all English graduate majors.

Candidates for the degree of Master of Arts with major in English must have met the undergraduate requirement of 18 hours of college work in French, German, or Latin.

## HONORS IN ENGLISH

Students enrolled in the department of English, whether major students or not, who maintain an honor-point average of at least 2.0 during their junior and senior years and who complete at least 24 hours of upper-division work in English may qualify as honor students in English and receive a special departmental honor certificate upon graduation. For full information concerning the requirements for honors in English, students should consult the head of the department.

## CERTIFICATION WITH ENGLISH AS A TEACHING FIELD

A major in English may meet the requirements for the A. B. degree and also the requirements of the State Board of Education for teachers' certification, with English and French or with English and Latin as teaching fields, in four years or eight semesters, provided two years of high-school Latin or French have been offered for entrance credit. In lieu of two entrance credits, additional hours of college work in the language are required for certification. Other combinations, such as English and social studies or English and physical education, sometimes require somewhat more than four years, and students who desire these combinations should consult the departmental adviser in planning their courses.

## COURSES OF INSTRUCTION

### Lower Division

**1C. English Composition.** I, II. No college credit. Three class hours weekly. Required of all students who fail to pass the freshman English placement test. Staff

**1. Composition and Rhetoric.** I, II. 3 Hrs. Primarily for freshmen. Required of all candidates for the bachelor's degree in all the colleges. Not open to upperclassmen. Staff

**2. Composition and Rhetoric.** I, II. 3 Hrs. Continuation of English I. Primarily for freshmen. Required of all candidates for the Bachelor's degree in all the colleges. Not open to upperclassmen. Staff

**3. English Literature.** I, II. 3 Hrs. Open only to lowerclassmen. Survey course devoted to study of English authors from **Beowulf** to Burns and readings from their works. PR: English 1 and 2 or a superior record in the freshman English placement test. Staff

**4. English Literature.** I, II. 3 Hrs. Open only to lowerclassmen. Survey course devoted to study of English authors from Robert Burns to the present time and of readings from their works. PR: English 1 and 2 or a superior record in the freshmen English Placement test. Staff

**5. American Literature.** I, II. 3 Hrs. Open only to lowerclassmen. Survey course devoted to study of American authors with readings from their works. PR: English 1 and 2 or a superior record in the freshman English placement test. Staff

**13. Expository Writing.** I, II. 2 Hrs. Not open to upperclassmen. PR: English 1 and 2. Staff

**14. Argumentative Writing.** II. 2 Hrs. Not open to upperclassmen. PR: English 1 and 2. Mr. Bishop or Miss Sayre

**16. Descriptive and Narrative Writing.** II. 2 Hrs. Not open to upperclassmen. PR: Either English 13 or a grade of at least B in English 2. Mrs. Reed

### Upper Division

Credit for at least 9 hours of lower-division English is prerequisite to admission to any upper-division courses.

Sophomores should not register for upper-division courses without special permission of the head of the English department.

Upperclassmen who have failed to obtain credit for required lower-division courses must make special arrangement with the head of the English department to make up the missing credit.

**115. Advanced Composition: Creative Writing.** II. 2 Hrs. PR: Consent of instructor. Mrs. Reed

**125. Advanced Composition.** I. 2 Hrs. A course designed particularly to meet the needs and interests of students in languages and literatures, social studies, and the arts. Mr. Johnson

**126. Advanced Composition.** II. 2 Hrs. A course in technical forms of writing designed particularly for students in sciences, engineering, and agriculture. Mr. Johnson

**127. The American Language.** II. 2 Hrs. A study of words and their ways in American speech. Mr. Chappell

**128. English Grammar.** II. 2 Hrs. Mr. Bishop

**142. Shakespeare.** I, II. 3 Hrs. Mr. Smith and Mr. Crocker

**160. Contemporary Literature.** I. 2 Hrs. Mr. Smith

**161. Contemporary Literature.** II. 2 Hrs. A continuation of English 160. Mr. Smith

**163. Great Men of English Letters.** I. 3 Hrs. A study of English literature with special reference to the life, personality, ideas, and influence of a number of great English authors. Mr. Crocker

**164. Great Men of English Letters.** II. A continuation of English 163. Mr. Crocker

**166. American Fiction.** I. 3 Hrs. Mr. Brawner

**167. Readings in American Prose of the Nineteenth Century.** II. 3 Hrs. Chief emphasis is placed upon non-fiction. Mr. Brawner

**171. Folk Literature in West Virginia.** I. 2 Hrs. Introductory course in folk games, songs, ballads, and stories of the state. Mr. Chappell

**173. Poetry.** I. 2 Hrs. Mr. Brawner

**175. The Short Story.** I. 2 Hrs. Mr. Bishop

**181. Bible Literature.** I. 3 Hrs. Mr. Johnson

**182. Masterpieces of World Literature.** II. 3 Hrs. Mr. Crocker

### Senior—Graduate Courses

Credit for English 1, 2, and 3 or their equivalent and for at least 3 hours of upper-division English is prerequisite to admission to courses 221-292, inclusive.

**221. Advanced Rhetoric.** II. 2 Hrs. Offered in 1945-46 and in alternate years thereafter. Mr. Johnson

**224. Literary Criticism.** II. 2 Hrs. Offered in 1944-45 and in alternate years thereafter. Mr. Johnson

**230. History of the English Language.** I. 3 Hrs. Mr. Chappell

**231. Old English.** I. 3 Hrs. Offered in 1944-45 and in alternate years thereafter. Mr. Chappell

**232. Beowulf.** II. 3 Hrs. Offered in 1944-45 and in alternate years thereafter. Mr. Chappell

**234. Chaucer.** II. 3 Hrs. Mr. Smith

**235. Shakespeare.** II. 3 Hrs. Mr. Draper

**236. English Literature.** 700-1200. I. 3 Hrs. Offered in 1945-46 and in alternate years thereafter. Mr. Chappell

**237. English Literature.** 1200-1550. II. 3 Hrs. Offered in 1945-46 and in alternate years thereafter. Mr. Chappell

**244. Literature of the Sixteenth Century.** I. 3 Hrs. Offered in 1944-45 and in alternate years thereafter. Mr. Draper

245. **Literature of the Seventeenth Century.** II. 3 Hrs. Offered in 1944-45 and in alternate years thereafter. Mr. Draper

247. **Literature of the Eighteenth Century.** I. 3 Hrs. Offered in 1945-46 and alternate years thereafter. PR: English 4. Mr. Draper

248. **Literature of the Eighteenth Century.** II. 3 Hrs. Continuation of English 247. Offered in 1945-46 and alternate years thereafter. PR: English 4. Mr. Draper

249. **The Romantic Movement.** I. 3 Hrs. PR: English 4. Mr. Brawner

250. **American Romanticism.** II. 3 Hrs. PR: English 5. Mr. Brawner

251. **Victorian Literature.** I. 3 Hrs. Offered in 1944-45 and alternate years thereafter. PR: English 4. Mr. Smith

252. **Modern English Literature. 1881-1918.** II. 3 Hrs. Offered in 1944-45 and alternate years thereafter. PR: English 4. Mr. Crocker

253. **Pre-Shakespearian Drama.** I. 3 Hrs. Offered in 1945-46 and alternate years thereafter. Mr. Crocker

254. **Elizabethan Drama.** II. 3 Hrs. Offered in 1945-46 and alternate years thereafter. Mr. Crocker

255. **Restoration and Eighteenth-century Drama.** I. 3 Hrs. Offered in 1944-45 and alternate years thereafter. Mr. Crocker

256. **Modern Drama.** II. 3 Hrs. Offered in 1944-45 and alternate years thereafter. Mr. Crocker

261. **The Technique of the Drama.** I. 2 Hrs. Drama as a literary form; technique of the various types. Mr. Crocker

263. **Study of One Author.** I. 2 Hrs. The author to be studied in 1945-46 is Robert Browning. Mr. Smith

264. **Study of One Author.** II. 2 Hrs. The author to be studied in 1945-46 is John Milton. Mr. Draper

270. **American Poetry.** II. 3 Hrs. Offered in 1945-46 and alternate years thereafter. Mr. Smith

271. **American Drama.** II. 2 Hrs. Offered in 1944-45 and alternate years thereafter. Mr. Smith

272. **Folk Literature.** II. 2 Hrs. Mr. Chappell

276. **The English Novel.** I. 3 Hrs. Mr. Johnson

277. **The Essay.** II. 3 Hrs. Offered in 1944-45 and alternate years thereafter. Mr. Johnson

278. **Tragedy.** II. 3 Hrs. The tragic spirit in epic poetry, fiction, and drama. Mr. Brawner

279. **Satire and Humor.** II. 3 Hrs. The comic spirit in English literature. Offered in 1945-46 and alternate years thereafter. Mr. Johnson

280. **The Contemporary Novel.** II. 2 Hrs. Mr. Bishop

291. **Introduction to Literary Research.** I. 2 or 3 Hrs. Mr. Draper

**Graduate Division**

392. **Seminar.** II. 2 or 3 Hrs. Mr. Draper

## Geology, Mineralogy, and Geography

Professor PRICE,* FRIDLEY, and MARTENS; Assistant Professors WELLS and FULLER

Each student majoring in geology is required to present credit for Geology 266s or its equivalent. The following schedule is recommended.

NOTE: Credit hours are shown in parentheses after course designations.

FIRST YEAR, FIRST SEMESTER: French or German (3); English **1** (3); Mathematics **3** (4); Chemistry **3** (4); Military Science **1** (1); Physical Education **1** (1). Total, 16 hrs.

FIRST YEAR, SECOND SEMESTER: French or German (3); English **2** (3); Mathematics **4** (2); Chemistry **4** (4); Mechanical Engineering **20** (3); Military Science **2** (1); Physical Education **2** (1). Total, 17 hrs.

SECOND YEAR, FIRST SEMESTER: French or German (3); Geology **1** (3); Geology **2** (1); Physics **1** (3); Physics **3** (1); history or economics; English or public speaking (3); Civil Engineering **1** (2); Military Science **3** (2). Total, 18 hrs.

SECOND YEAR, SECOND SEMESTER: French or German (3); Geology **3** (3); Geology **4** (1); Physics **2** (3); Physics **4** (1); history or economics; English or public speaking (3); Military Science **4** (2). Total, 16 hrs.

THIRD YEAR: Geology **161** (3); Geology **204** (4); Geology **205** (4); Chemistry **105** (4) and Chemistry **106** (5); electives (12 to 14). Total, 32 to 34 hrs.

FOURTH YEAR: Upper-division courses in geology (12 to 15 hours); electives (17 to 19 hours). Total, 32 to 34 hrs.

### SEQUENCES

#### Lower Division

Geology 1, 2, 3, and 4 give a general view of the subject.

Geology 1 and 111 introduce rocks and minerals and their uses.

Geography 7 and 109 or 116 and Geology 108 is a combination for students of education.

Geology 1 and 111 is a sequence suggested for majors in economics. If time permits, Geology 3 should be included in this group.

Geology 1, 2, 3, 4, and Geology 108 are a good general sequence.

### COURSES OF INSTRUCTION

### GEOLOGY AND MINERALOGY

#### Lower Division

1. **General Geology.** I, II. 3 Hrs. A scientific description of the composition and structure of the earth; the physical processes which change

*On military leave.

the surface of the earth. (Geology 1 must be accompanied by Geology 2 in order to meet the requirements for four hours of a laboratory science in General Geology.) Staff

2. **General Geology Laboratory.** I, II. 1 Hr. Accompanies Geology 1. Staff

3. **Historical Geology.** I, II. 3 Hrs. PR: Geology 1. Evolution of the earth and its inhabitants. (Geology 3 must be accompanied by Geology 4 in order to meet the requirements for four hours of a laboratory science in Historical Geology.) Mr. Wells

4. **Historical Geology Laboratory.** I, II. 1 Hr. Accompanies Geology 3. Mr. Wells

### Upper Division

108. **Natural Resources and Geology of West Virginia.** II. 3 Hrs. A summary of the geology of the State from a historical and economic standpoint. PR: Geol. 1 or 7. Mr. Price

111. **Economic Geology: Non-metallics.** I. 3 Hrs. Occurrence, formation, and use of non-metallic mineral substances, including mineral fuels, building materials, chemicals, etc. PR: Geol. 1 and 2. Mr. Price

112. **Economic Geology: Ore Deposits.** II. 3 Hrs. Mineral composition, geological features, and distribution of the deposits of the principal useful metals. PR: Geol. 1 or 2. Mr. Martens

161. **Field Geology.** II. 3 Hrs. An introduction to actual field techniques utilized by the geologist in mapping and reporting on the geology of unknown regions. The Morgantown area is studied in detail. PR: Geol. 3 or equivalent. Mr. Fuller

204. **Invertebrate Paleontology.** I. 4 Hrs. Invertebrate fossils; their biologic classification, evolutionary development and use in the correlation of strata. PR: Geol. 3. Mr. Wells

205. **Structural Geology.** I. 3 or 4 Hrs. Shape and position of rock masses in the earth's crust; mechanical principles underlying the various types of rock deformation; indication of the economic importance of deformed rock structures with respect to recovery of mineral products. PR: Geol. 1 and 3. Mr. Fuller

206. **Sedimentation.** II. 4 Hrs. Origin of the sedimentary rocks; the principles involved in interpretation of ancient geography, climates, animals and plants, i. e., the basic foundations for stratigraphy. Emphasis upon economically important sedimentary products. PR: Geol. 1 and 3. Mr. Fuller

207. **Stratigraphy.** II. 4 Hrs. Distribution, age, and general character of the geologic formations of North America, and their included forms of life. Changing structural features of the continent are noted by use of paleogeographic maps. PR: Geol. 3 and 204. Mr. Wells

208. **Geomorphology.** I. 3 Hrs. Forms and physiographic study of the surface features of the eastern United States. PR: Geol. 3. Mr. Fridley

209. **Geomorphology.** II. 3 Hrs. Continuation of Geology 208. Surface features of the western United States. PR: Geol. 3. Mr. Fridley

211. **Geology of Coal, Oil, and Gas.** II. 3 Hrs. Origin, geologic distribution, methods of exploration and exploitation, uses, and future reserves of coal, oil, and gas in the world, with special attention to the United States. PR: Geol. 3 and Chem. 106. Mr. Fuller

212. **Advanced Meteorology.** II. 2 Hrs. Mr. Fridley

266S. **Field Geology.** SI. 6 Hrs. Practical experience in detailed geological field procedures and mapping in the vicinity of Seneca Rocks, Pendleton County. Living expenses are in addition to tuition and must be paid in the amount of $70 on or before registering. PR: Geol. 3 and 161 (or their equivalents). Mr. Fuller and Staff

273S. **Geological Survey.** SI, SII. 2 and 6 Hrs. Field experience as assistant to an older member of the State Geological Survey staff. Under direction of State Geologist Price. Mr. Price

284. **Mineralogy.** I. 4 Hrs. The first one-third of the course deals with general principles of mineralogy and crystallography and the last two-thirds is a systematic description of the more important minerals. PR: One year each of chemistry and physics. Mr. Martens

285. **Microscopic Mineralogy.** II. 4 Hrs. Principles of optical mineralogy and practice in the use of the polarizing microscope in identification of minerals. Applications to various branches of geology and related sciences are stressed in accordance with the interest of the individual student. PR: Geol. 284. Mr. Martens

289. **Geologic Problems.** I, II. 2 to 4 Hrs. Specialized work for advanced students based upon original field and laboratory work or upon outstanding contributions to the literature. Consult departmental adviser before registering. Staff

290. **Geologic Problems.** I, II. 2 to 4 Hrs. Continuation of Geol. 289. Staff

291, 292. **Seminar.** I, II. 1 Hr. PR: Geol. 204. Staff

### Graduate Division

301. **Micropaleontology.** I. 4 Hrs. Identification of Foraminifera, Bryozoa, and Ostracoda with aid of the microscope. Emphasis upon classification, nomenclature, and use of paleontological literature. PR: Geol. 204. Mr. Wells

310. **Advanced Economic Geology.** I. 3 Hrs. Occurrence, origin, and distribution of mineral products of economic value and the practical application of geologic principles. PR: Geol. 111 and 205. Mr. Price

395, 396. **Special Topics.** I and II. 1 to 4 Hrs. per semester. Petrography of igneous rocks, sedimentary petrography, invertebrate paleontology, stratigraphy, economic geology, and geomorphology are suggested topics. Staff

397, 398—**Research.** I, II. 1 to 5 Hrs. Specialized work for advanced students based upon field or laboratory evidence and reported upon in candidacy for advanced degrees. Staff

## GEOGRAPHY

### Lower Division

7. **Introductory Geography.** I. 3 or 4 Hrs. The relationship between environment and forms of life, with special emphasis on physiography and climatology. Mr. Fridley

12. **Meteorology.** I, II. 3 Hrs. The physical processes underlying observed weather phenomena. Mr. Fridley

### Upper Division

107. **Global Geography.** I. 3 Hrs. Geographic patterns: peoples, nations, and theatres of current events in their appropriate environmental settings. Mr. Fridley

**109. Economic Geography.** II. 3 Hrs. The regional method of treating agricultural, industrial, and commercial development of each of the various countries of the world, and study of the environmental features which have contributed to the development. PR: Geol. 1 or 7. Mr. Fridley

**116. Geography of North America.** II. 3 Hrs. The geographic sections of the United States and Canada and a brief survey of each of the Central American republics. PR: Geol. 1 or 7. Mr. Fridley

**212. Advanced Meteorology.** II. 2 Hrs. Interpretation and preparation of weather maps. Weather forecasting. PR: Geol. 12 or equivalent. Mr. Fridley

## Germanic Languages and Literatures

Assistant Professors ROESCH and LEMKE

The chief objective of the department is to enable the student to read thoughtful German without the aid of a dictionary. Of German 1, 2, 3, and 4, each is prerequisite to the next following, and the four combined are prerequisite to all other courses.

Students majoring in German are advised to base their schedules on upper-division courses from the following subjects, which are listed here in the order of their importance: German, education, English, European history, Latin, Romance languages, modern philosophy, and Greek. Those who are not planning to teach German may omit the courses in education, but the sequence of subjects, from the angle of their desirability for a major in German, remains the same.

### COURSES OF INSTRUCTION[1]

#### Lower Division

**1. Elementary German.** I, II. 3 Hrs. Pronunciation, syntax, reading, composition. Staff

**2. Elementary German.** I, II. 3 Hrs. Staff

**3. Intermediate German.** I. 3 Hrs. Rapid reading of prose by modern authors, memorizing of poems, dictation, composition. Staff

**4. Intermediate German.** II. 3 Hrs. Continuation of German 3. Staff

#### Upper Division

**105. The German "Novelle".** I. 3 Hrs. Mr. Lemke

**107. Nineteenth Century Drama.** I. 3 Hrs. Critical study of selected dramas by Kleist, Grillparzer, Hebbel, Ludwig. Miss Roesch

**108. Nineteenth-century Drama.** II. 3 Hrs. Continuation of German 107. Miss Roesch

**111. Spoken German.** I. 3 Hrs. Practice in the speaking and writing of German. Miss Roesch

**112. Spoken German.** II. 3 Hrs. PR: one year of college German or two years of high-school German. Miss Roesch

[1]German 1, 2, 3, and 4 each is prerequisite to the next following, and the four combined are prerequisite to all other courses with the exception of German 111, 112, 121, and 122, for which German 1 and 2 are prerequisite.

121. **Scientific German.** I. 3 Hrs. Primarily for students in science courses. Mr. Lemke

122. **Scientific German.** II. 3 Hrs. Continuation of German 121. Mr. Lemke

131. **German Composition.** II. 1 Hr. Practice in the writing of German.

132. **German Composition.** II. 1 Hr. Practice in the writing of German.

136. **Introduction to Goethe.** II. 3 Hrs. Miss Roesch

161. **Lyric Poetry (1750-1840).** I. 3 Hrs. Mr. Lemke

162. **Lyric Poetry (1840-1930).** II. 3 Hrs. Mr. Lemke

211. **Middle High German.** I. 1 Hr. PR: 12 hours of German from the upper division. Miss Roesch

†212. **Middle High German.** II. 1 Hr. PR: same as for German 211, and including it. Miss Roesch

†241. **Faust, Part I.** I. 3 Hrs. Open to qualified undergraduates. Miss Roesch

†242. **Faust, Part II.** II. 3 Hrs. PR: German 241. Miss Roesch

245. **History of German Literature, 1766-1870.** I. 3 Hrs.

246. **History of German Literature, 1870-1914.** II. 3 Hrs. Continuation of German 245.

272. **The Romantic Movement.** II. 3 Hrs. Mr. Lemke

## History

Professors AMBLER, CHITWOOD, and SHORTRIDGE; Associate Professors ENNIS, SUMMERS, and EASTON

Before graduation history majors are required to complete 18 hours in upper-division courses, including History 276, introduction to historical research and bibliography. Six hours in political science and 6 hours in economics are also required in addition to the special requirements for the A. B. degree. Students who expect to major in history should complete the following subjects, or their equivalents, in their first and second years: English, 6 hours; French or German, 12 hours; history, 12 hours, which should include History 52 and 53, and may include one year's work in either Humanities or Social Sciences general courses; laboratory science, 8 hours; political science, 6 hours; and economics, 6 hours. In planning work in history, students should consult the department in order that advanced courses may be properly correlated as well as suited to individual needs and tastes. One lower-division "year course" or equivalent in history is prerequisite for a major, but prospective majors are advised to take two such courses or History 52 and History 53 and one year of Humanities or Social Sciences general courses.

### COURSES OF INSTRUCTION

#### Lower Division[1]

1. **Europe to 1815.** I, II. 3 Hrs. For freshmen. Mr. Ennis and Mr. Easton

[1]All first- and second-year courses are offered as lower-division "year courses." These courses run through the year, but in no case is the first half-year a prerequisite for the second half. For example, History 1 is not a prerequisite for History 2. History 1 and History 2 make up the introductory first year in history. History 52 and 53 are primarily for sophomores. A freshman should not take more than one "year course" at a time.

†Omitted, 1945-46.

2. **Europe since 1815.** I, II. 3 Hrs. Continuation of History 1. Mr. Ennis and Mr. Easton

52. **United States to 1865.** I, II. 3 Hrs. For sophomores. Mr. Chitwood, Mr. Ambler, and Mr. Summers

53. **United States since 1865.** I, II. 3 Hrs. Continuation of History 52. Mr. Chitwood, Mr. Ambler, and Mr. Summers

**Upper Division**

101. **Ancient Times.** I. 3 Hrs. Mr. Easton

106. **Medieval Europe.** I. 3 Hrs. PR: one college course in European history. Mr. Easton

107. **The French Revolution.** I. 3 Hrs. Mr. Easton

108. **The Napoleonic Era.** II. 3 Hrs. PR: History 107. Mr. Ennis

109. **Social and Cultural History of Europe in the Nineteenth Century.** I. 3 Hrs. Mr. Easton and Mr. Ennis

110. **Social and Cultural History of Europe in the Twentieth Century.** II. 3 Hrs. Mr. Easton and Mr. Ennis

114. **The Renaissance and the Reformation.** II. 3 Hrs. Mr. Easton

133. **British Civilization to 1603.** I. 3 Hrs. Mr. Shortridge

134. **British Civilization since 1603.** II. 3 Hrs. Continuation of History 133. Mr. Shortridge

135. **English Constitutional Growth.** I. 3 Hrs. Primarily for pre-law juniors. Mr. Shortridge

150. **West Virginia.** I, II. 3 Hrs. Mr. Ambler

151. **American Colonial History.** I, II. 3 Hrs. Mr. Chitwood

161. **Latin America.** I or II. 3 Hrs.

164. **Problems of the Pacific.** II. 2 or 3 Hrs. Mr. Ennis

217. **Social and Economic History of the United States.** I. 3 Hrs. Mr. Ambler

218. **The Present World War.** II. 2 or 3 Hrs. Mr. Chitwood

219. **History of Russia.** I or II. 2 or 3 Hrs. Mr. Easton

231. **The British Empire.** I. 3 Hrs. Mr. Shortridge

232. **Canada.** II. 3 Hrs. Mr. Shortridge

233. **Stuart England.** I. 3 Hrs. Mr. Shortridge

234. **Recent Britain.** II. 3 Hrs. Mr. Shortridge

241. **Modern Europe, 1876-1914.** II. 3 Hrs. Mr. Ennis

242. **Contemporary Europe.** I or II. 2 or 3 Hrs. Mr. Ennis

249. **The Westward Movement to 1820.** I or II. 3 Hrs. Mr. Ambler

254. **Trans-Mississippi West.** I, II. 3 Hrs. Mr. Ambler

256. **The Jacksonian Era.** II. 3 Hrs. Mr. Chitwood

257. **The Ante-bellum South and the War of Secession.** I, II. 3 Hrs. Mr. Summers

258. **Reconstruction and National Development, 1865-1898.** I, II. 3 Hrs. Mr. Ambler

259. **Recent American History.** II. 3 Hrs. Mr. Ambler

260. **American Foreign Policy and Diplomacy, 1776-1861.** I. 3 Hrs. PR: History 52 or equivalent. Mr. Ambler

261. **American Foreign Policy and Diplomacy, 1861-1945.** II. 3 Hrs. PR: History 53, or equivalent. Mr. Ambler

265. **American Constitutional Development to 1860.** I. 3 Hrs. PR: History 52 and 53, or equivalent. Mr. Chitwood

266. **American Constitutional Development Since 1860.** II. 3 Hrs. Continuation of History 265. Mr. Summers

270. **Research in American History.** I, II. 2 Hrs. Staff

271. **Problems in Recent European History.** II. 3 Hrs. Mr. Ennis

276. **Introduction to Historical Research and Bibliography.** I, II. 3 Hrs. This course is prescribed in the fourth year for all history majors. Mr. Summers

### Seminars[1]

301. **Thesis.** I. 2 or 3 Hrs. Staff

302. **Thesis.** II. 2 or 3 Hrs. Staff

303. **Research.** I. 6 Hrs. Staff

304. **Research.** II. 6 Hrs. Staff

349. **Problems in Local and Regional History.** I. 3 Hrs. Mr. Ambler

350. **Problems in Local and Regional History.** II. 3 Hrs. Mr. Ambler

351. **American Colonial Institutions.** I, II. 3 Hrs. Mr. Chitwood

384. **Problems in British Imperial History.** I. 3 Hrs. Mr. Shortridge

385. **Problems in British Imperial History.** II. 3 Hrs. Mr. Shortridge

389. **Problems in Revolutionary Europe, 1763-1815.** I or II. 3 Hrs. Mr. Easton

## Home Economics

Courses in this subject are offered in the College of Arts and Sciences and in the College of Agriculture, Forestry, and Home Economics.

Students in the College of Arts and Sciences who select home economics as a major must complete the lower-division requirements with the following changes (see page 118):

[1]Seminar courses are for history and social science majors and admission is only by permission of instructors in charge and should be by their request.

(b) Science. Chemistry, 8 hours, and Biology, 8 hours.
(e) Additional. At least 6 hours in each of three of the following: English, including public speaking; history; and home economics.
(f) Electives include Home Economics 3, 4, 17, and 31, economics, sociology, psychology, political science, and Humanities 1.

In the upper division, Home Economics, 107, 115, 120, 135, 240, 251, 254, or 252 should be taken. The total hours must not exceed 36 in this College. Further electives should be taken in biological sciences and social sciences.

Attention is called to the fact that students who are not interested in the physical and biological sciences may elect Home Economics 17, 31, 115, 134 or 135, 138, 160, 161, and 240.

Students who are preparing to teach home economics must meet the requirements of the State Board of Education and of the College of Education.

The head of the Division of Home Economics in the College of Agriculture is also a member of the College of Education and is the adviser for students wishing to meet the requirements for a high-school certificate to teach home economics with a second teaching subject.

## Library Science

Professor KELLAM and Assistant REESE

The courses in library science are designed to meet the needs of students preparing to qualify for State certification as teacher-librarians in the public schools. However, certain courses will be of particular value to all students in helping them to find library materials for their class work. The courses "Childrens Literature and Story Telling" and "Reference and Bibliography" are of value to all prospective teachers.

No student should select Library Science as a major or teaching field unless he or she has the ability to work well with children and young people and is able to adapt oneself easily and quickly to new situations. Genuine enthusiasm for and broad knowledge of books are desirable.

### COURSES OF INSTRUCTION

#### Lower Division

1. **Teaching the Use of the Library.** I, II. 2 Hrs. Planned to give a working knowledge of the University Library as well as of school libraries. Basic reference materials are considered, together with simple bibliography making. A general course, useful to any student in the University.

#### Upper Division

101. **Reference and Bibliography.** I. 3 Hrs. Basic reference books, dictionaries, encyclopedias, indexes, year books, and other reference material are studied and evaluated, with practice in detailed bibliography making.

102. **Cataloguing and Classification.** II. 3 Hrs. Fundamental principles of cataloguing and classification, with practical experience in handling all types of books. Problems of teacher-librarians receive special attention.

**103. Children's Literature and Story Telling.** I. 3 Hrs. Study, reading, selection, and history of children's literature, with practice in story telling.

**104. Book Selection.** II. 2 Hrs. Principles of book selection for various types of libraries and readers with emphasis on the reading interests and habits of adults. Each student is required to read representative titles in every field of literature.

**105. Adolescent Literature.** II. 2 Hrs. Principles and methods of book selection for junior and senior high-school libraries and the necessary bibliographic tools.

**106. History of Books and Libraries.** II. 3 Hrs. Survey course, including the development of writing, the history of writing materials, the development of the book from early manuscript form, history of printing, printers, illustrators, bindings, and libraries.

**107. Administration of School Libraries.** I. 3 Hrs. Methods of planning, equipping and organizing a library, together with technical and mechanical processes involved.

**108. Library Practice.** I, II. 3 Hrs. A field course designed to give the student experience in meeting library conditions and problems as they exist and arise in actual practice in school libraries.

## Mathematics

Professors REYNOLDS and TURNER; Associate Professors DAVIS and VEHSE; Assistant Professors COLE, STEWART, and VEST; Instructors MURPHY and PETERS

Students who enter from high school with only 1 unit of algebra and 1 unit of plane geometry must elect Mathematics 2 before being admitted to any further courses, except Mathematics 7.

Students who wish to fulfill requirements for mathematics as a teaching subject are advised to take Mathematics 3, 4, 5, 7, and 107, and 108, or in case the student enters with only 1 unit in algebra and 1 unit in plane geometry, Mathematics 2, 3, 4, 7, 5, and 107 and 108.

Preparation for the Major. Mathematics 7, 3, 4, 5. Students who have only 1 unit in algebra, Mathematics 2, 3, 7, 4 or 10, 5. If a student comes well prepared in mathematics, the upper-division courses, Mathematics 107 and 108, may be taken while he is still a student in the lower division.

The Major. Mathematics 107, 108, 240, 241, 242, and one of the following courses: 243, 244, 245, and 246.

### COURSES SUGGESTED FOR MAJORS IN MATHEMATICS WITH A SECOND TEACHING SUBJECT

NOTE: Credit hours are shown in parentheses after course designations.

FIRST YEAR, FIRST SEMESTER: English 1 (3); French or German (3); history (3); Mathematics 3 (4) and 4 (2); military science (11); physical education (1). Total, 16 or 17 hrs.

FIRST YEAR, SECOND SEMESTER: English 2 (3); French or German (3); history (3); Mathematics 5 (4); public speaking (2); military science (1); physical education (1). Total, 16 to 17 hrs.

SECOND YEAR, FIRST SEMESTER: French or German (3); Mathematics **107** (4); science (4); economics (3); political science (3); military science (2); physical education (1). Total, 19 hrs.

SECOND YEAR, SECOND SEMESTER: French or German (3); Mathematics **108** (4); science (4); sociology (3); English (2); military science (2); physical education (1). Total, 18 hrs.

THIRD YEAR: Mathematics **240** (3) and **242** (3); education (8); health (2); second teaching subject and electives (13 to 19). Total, 29 to 35 hrs.

FOURTH YEAR: Mathematics **241** (3); **243, 244** or **245** (3); education (12); second teaching subject and electives (12 to 18). Total, 30 to 36 hrs.

## COURSES OF INSTRUCTION

### Lower Division

**2. Algebra.** I, II. 3 Hrs. PR: 1 unit of algebra and 1 unit of plane geometry. Staff

**3. College Algebra.** I, II. 4 Hrs. PR: 1½ units of algebra or Mathematics 2, and 1 unit of plane geometry. Staff

**4. Plane Trigonometry.** I, II. 2 Hrs. PR: 1½ units of algebra and 1 unit of plane geometry. Staff

**5. Analytic Geometry.** I, II. 4 Hrs. PR: college algebra and plane trigonometry. Staff

**7. Solid Geometry.** I, II. 3 Hrs. If offered to remove entrance conditions, ½ unit. PR: plane geometry. Staff

**10. Plane Trigonometry.** II. 3 Hrs. PR: 1 unit of algebra and 1 unit of plane geometry. Staff

### Upper Division

**106. Descriptive Astronomy.** II. 3 Hrs. PR: Math. 5. Mr. Reynolds

**107 or 207. Differential and Integral Calculus.** I, II. 4 Hrs. PR: Mathematics 5. Staff

**108 or 208. Differential and Integral Calculus.** I, II. 4 Hrs. Continuation of Mathematics 107. Staff

**128. Mathematical Theory of Investment.** II. 3 Hrs. Primarily for students in economics and sociology. PR: Mathematics 3. Mr. Reynolds

**130. Elementary Theory of Mathematical Statistics.** II. 3 Hrs. PR: Mathematics 107. Mr. Reynolds

**240. Differential Equations.** I. 3 Hrs. PR: Mathematics 108. Mr. Davis

**241. Theory of Determinants and Analytic Geometry of Space.** I. 3 Hrs. PR: Mathematics 108. Miss Turner

**242. Advanced Calculus.** II. 3 Hrs. PR: Mathematics 108. Mr. Vehse

**243. Projective Geometry.** II. 3 Hrs. PR: Mathematics 241. Miss Turner

**244. Theory of Equations.** II. 3 Hrs. PR: Mathematics 108. Mr. Reynolds

**245. Vector Analysis.** II. 3 Hrs. PR: Math. 240 and 242. Mr. Stewart

**247. Theory of Numbers.** II. 2 Hrs. PR: Mathematics 5. Mr. Vehse

**248. History of Mathematics.** II. 2 Hrs. PR: Mathematics 5 or 52s. Mr. Reynolds

**249. History of Elementary Modern Mathematics.** II. 2 Hrs. PR: Mathematics 5 or 52s. Mr. Reynolds

**253. Advanced Course in Applied Mathematics.** I. 3 Hrs. PR: Mathematics 108. Mr. Vest

**254. Advanced Course in Applied Mathematics.** II. 3 Hrs. PR: Mathematics 253. Mr. Vest

**360. Differential Geometry and Theory of Surfaces.** I. 3 Hrs. PR: Mathematics 240, 241, 242, and 243. Mr. Davis

**361. Differential Geometry and Theory of Surfaces.** II. 3 Hrs. Continuation of Mathematics 360. Mr. Davis

**362. Higher Algebra.** I. 2 Hrs. PR: Mathematics 242 and 243. Mr. Reynolds

**363. Higher Algebra.** II. 2 Hrs. Continuation of Mathematics 362. Mr. Reynolds

**364. Introduction to the Theory of Functions of a Complex Variable.** I. 3 Hrs. PR: Mathematics 240, 242, and 243. Mr. Reynolds

**365. Introduction to the Theory of Functions of a Complex Variable.** II. 3 Hrs. Continuation of Mathematics 364. Mr. Reynolds

**366, 367. Higher Plane Curves.** I and II. 3 Hrs. per semester. PR: Mathematics 243. Miss Turner

**370, 371. Theoretical Mechanics.** I and II. 3 Hrs. per semester. PR: Mathematics 240 and Physics 232. Mr. Vehse

**372, 373. Line Complexes and Cremona Transformations.** I, II. 3 Hrs. per semester. PR: Mathematics 243. Mr. Davis

**374, 375. Algebraic Surfaces.** I and II. 3 Hrs. per semester. PR: Mathematics 367. Miss Turner

**376, 377. Theory of Functions of a Real Variable.** I and II. 3 Hrs. PR: Mathematics 365. Mr. Reynolds

## Philosophy and Psychology

Professors WINTER and STALNAKER; Associate Professors CRESSWELL and CURTIS

There is such wide diversity in the preparation, needs and aims of individual students that the department cannot lay down inflexible rules with regard to sequence of courses.

Introduction of Psychology (Psychology 1) or General Psychology (Psychology 3 and 4) is prerequisite to all other courses in the department. The upper-division courses are arranged in the order best suited to a progressive development in the fields of psychology and philosophy respectively.

Majors. Students who desire to do their major work in this department should consult with the head of the department before making their decision.

There are various fields of work open to those who major in either philosophy or psychology, some of which are follows:

*Psychology Majors:*

1. Teaching psychology in university, college, or normal school.
2. Clinical work in public schools, hospitals, or social service.
3. Vocational guidance.
4. Personnel work in industry.
5. Preparation for certain phases of psychiatry.
6. Consulting psychologist.

*Philosophy Majors:*

1. Teaching philosophy in university, college, seminary, or normal school.
2. The ministry.
3. General culture for those not planning to undertake a specific type of work.

A major includes at least 24 hours of upper-division work in the department. Students may major in either philosophy or psychology. Students majoring in either of these branches will include at least one course in the other.

The sequence of courses for each major will be arranged so as to give the student the best foundation for the type of work he wishes to pursue.

Related Courses. Various departments offer courses of special value to students of philosophy and psychology. Following is a list of these courses:

For students in psychology: zoology; physiology; neurology; genetics; sociology; education; political science; and economics.

For students in philosophy: classical civilization (Greek life and thought); ancient or medieval history, or both; sociology; at least 12 hours in one of the sciences, or mathematics.

Students whose work shows a marked deficiency in English will be required to take a course in advanced composition.

Majors who look forward to teaching philosophy or psychology should plan to secure at least a Master's degree before applying for a teaching position.

Students who expect to continue their study of philosophy or psychology in a graduate school, either here or elsewhere, are advised to take at least 12 hours of both German and French.

## COURSES OF INSTRUCTION

### PSYCHOLOGY

#### Lower Division

1. **Introduction to Psychology.** I, II. 3 Hrs. Not open to freshmen. This course is designed to familiarize the student with the principal phenomena of mental life, and is prerequisite to all other courses in psychology and philosophy except for those who take Psychology 3 and 4. Mr. Winter and Miss Stalnaker

3. **General Psychology.** I. 4 Hrs. Open to freshmen. Three hours of lecture and quiz and two hours of laboratory per week. Mr. Curtis and Staff

4. **General Psychology.** II. 4 Hrs. PR: Psychology 3. Continuation of Psychology 3. Mr. Curtis and Staff

10 or 110. **Applied Psychology.** II. 3 Hrs. A study of the application of psychology to medicine and law. PR: Psychology 1 (or 3 and 4). Mr. Winter

### Upper Division

**115. Psychology of Management.** I. 3 Hrs. PR: Psychology 1 (or Psychology 3 and 4). Mr. Curtis

**116. Social Psychology.** I. 3 Hrs. PR: Psychology 1 (or 3 and 4). Mr. Winter

**118. Military Psychology.** I. 2 Hrs. Open to military students without any prerequisite. This course is designed to acquaint the prospective soldier with those psychological factors which will be of practical use to him. Mr. Winter

**122. Child Psychology.** II. 3 Hrs. PR: Psychology 1 (or 3 and 4). Miss Stalnaker

**125. Mental Hygiene.** I. 3 Hrs. PR: Psychology 1 (or 3 and 4). Miss Stalnaker

**132. Psychology of Advertising and Industry.** II. 3 Hrs. PR: Psychology 1 (or 3 and 4). Mr. Curtis

**219. Clinical Psychology.** II. 3 Hrs. PR: Psychology 1 (or 3 and 4), 122, and 224. Miss Stalnaker

**224. Mental Measurement.** I. 3 Hrs. PR: Psychology 1 (or 3 and 4). Miss Stalnaker

**226. Advanced Experimental Psychology.** I. 2 Hrs. Students in this course will be given individual problems for experimentation. PR: Psychology 3, 4, and 224. Mr. Curtis

**229. Abnormal Psychology.** II. 3 Hrs. PR: Psychology 1 (or 3 and 4) and 116. Miss Stalnaker

**230. Advanced Psychology.** II. 3 Hrs. PR: Psychology 1 (or 3 and 4) and one course in philosophy. Mr. Winter

**234. Problems in Child Psychology.** II. 3 Hrs. Students in this course will be assigned individual problems in child behavior. PR. Psychology 1 (or 3 and 4) and 122. Miss Stalnaker

**240. History of Psychology.** II. 2 Hrs. PR: Psychology 1 (or 3 and 4) and two courses in philosophy. Mr. Winter

**245. Seminar.** I. 2 Hrs. A critical study of the current literature of psychology. PR: Psychology 1 (or 3 and 4) and 116. Mr. Winter

**301, 302. Special Problems in Psychological Research.** I and II. 2 to 4 Hrs. Staff

## PHILOSOPHY

### Lower Division

**4. Introduction to Philosophy.** I, II. 3 Hrs. PR: Psychology 1 (or 3 and 4). Mr. Cresswell

**11 or 111. Ethics.** I. 3 Hrs. PR: Psychology 1 (or 3 and 4). Mr. Cresswell

### Upper Division

**104. Introduction to Philosophy.** I, II. 3 Hrs. PR: Psychology 1 (or 3 and 4). Mr. Cresswell

**106. Logic.** I. 3 Hrs. PR: Psychology 1 (or 3 and 4), Philosophy 4. Mr. Cresswell

112. **History of Ancient and Medieval Philosophy.** I. 3 Hrs. PR: Psychology 1 (or 3 and 4) and Philosophy 4. Mr. Cresswell

113. **History of Modern Philosophy.** II. 3 Hrs. Continuation of Philosophy 112, ending with German Idealism. PR: Psychology 1 (or 3 and 4) and Philosophy 4. Mr. Cresswell

114. **Contemporary Philosophy.** II. 3 Hrs. PR: Psychology 1 (or 3 and 4), Philosophy 4 and 3 hours in another philosophy course. Mr. Cresswell

120. **The Philosophy of Plato.** I. 3 Hrs. PR: Psychology 1 (or 3 and 4), Philosophy 4 and 3 hours in another philosophy course, preferably Philosophy 112. Mr. Cresswell

208. **Philosophy of Religion.** II. 3 Hrs. PR: Psychology 1 (or 3 and 4), Philosophy 4 and 3 hours in another philosophy course. Mr. Cresswell

212. **Seminar in Medieval Philosophy.** II. 3 Hrs. Medieval culture with particular reference to Thomas Aquinas. PR: Psychology 1 (or 3 and 4), Philosophy 4, 112, 113, and 106. Mr. Cresswell

216. **Contemporary Political Philosophy.** II. 3 Hrs. PR: Psychology 1 (or 3 and 4) and Philosophy 4. Mr. Cresswell

217. **Seminar in Metaphysics.** I. 2 Hrs. Critical study of a selected system of thought. PR: Psychology 1 (or 3 and 4), Philosophy 4, 112, 113, and 106. Mr. Cresswell

## Physics

Professors COLWELL, MOLBY, and FORD; Associate Professor THOMAS; Instructor BRYAN

The various courses offered in physics are designed to meet the needs of the students in the College of Arts and Sciences, Agriculture, and Engineering, the School of Music, and the School of Medicine. All the courses are divided into lower and upper divisions. Majors in physics or mathematics will choose courses from the upper group at the beginning of the third year.

### COURSES SUGGESTED FOR PHYSICS MAJORS

FIRST YEAR—English, algebra, trigonometry, introductory physics, French, some required subjects.

SECOND YEAR—analytical geometry, calculus, problems in physics, German, general physical laboratory or chemistry (or radio or photography), public speaking, some required subjects.

THIRD YEAR—light, electrical measurements, advanced radio, differential equations, German, some required subjects.

FOURTH YEAR—modern electrical theory or electricity and magnetism, theoretical mechanics, vector analysis, intermediate physical laboratory.

#### Lower Division

1. **Introductory Physics.** I. 3 Hrs. Primarily for freshmen. Required of all agricultural students and all students in the School of Medicine. Must be accompanied by Physics 3. Takes up mechanics, sound, and heat. PR: plane geometry and algebra. Mr. Colwell and Mr. Thomas

2. **Introductory Physics.** II. 3 Hrs. Primarily for freshmen. Must be accompanied by Physics 4. Includes electricity, magnetism, and light. PR: Physics 1. Mr. Colwell and Mr. Thomas

3, 4. **Introductory Physical Laboratory.** I and II. 1 Hr. per semester. Primarily for freshmen. Accompanies and is required of all students who take Physics 1 and 2. Mr. Molby and Staff

17. **General Laboratory.** I, II. 2 Hrs. Primarily for sophomores and juniors. This course is designed to meet the needs of students who desire more laboratory work than that offered in Physics 3 and 4. PR: Physics 3 and 4. Mr. Molby

**Upper Division**

105. **General Physics.** I. 4 Hrs. Required of all candidates for engineering degrees and recommended for all students who major in mathematics. Not open to students who have credit for Physics 1. Physics 107 must accompany. Comprises mechanics, sound, and heat. PR: trigonometry and analytical geometry. Mr. Ford and Mr. Thomas

105A. **General Physics.** II. 4 Hrs. A repeat course for those who have failed in Physics 105.

106. **General Physics.** II. 4 Hrs. Continuation of Physics 105. Not open to students who have credit in Physics 1 and 2. Covers light, electricity, and magnetism. Physics 108 must accompany. Mr. Ford and Mr. Thomas

107, 108. **General Physics Laboratory.** I and II. 1 Hr. per semester. A companion course for Physics 105 and 106. Mr. Molby and Staff

109, 110. **A Problem Course in General Physics.** I and II. 2 Hrs. per semester. Open to students who have taken Physics 1, 2, 3, and 4, or equivalent; not open to students who have taken Physics 105, 106, 107, and 108. Mr. Thomas

113. **Introductory Radio.** I. 3 Hrs. PR. Physics 1, 2, 3, and 4, or equivalent. Mr. Thomas

114. **Introductory Radio-Telegraphy and Radio-Telephony.** II. 3 Hrs. PR: Physics 113. Mr. Thomas

116, 216. **Photography.** II. 3 Hrs. For science majors. Mr. Molby

221. **Light.** I. 3 Hrs. Lectures and laboratory work, designed to meet the needs of students in general biology, chemistry, and medicine. Graduate credit will be allowed to those who are not majoring in Physics. PR: Physics 1, 2, 3, 4, and trigonometry, or Physics 105, 106, 107, and 108. Mr. Molby

225, 226. **Introduction to Modern Physics.** I and II. 3 Hrs. per semester. Especially for students majoring in the natural sciences. Open to all seniors. PR: Physics 1, 2, 3, and 4, or 105, 106, 107, and 108, and Mathematics 3 and 4, or equivalent. Mr. Ford

231, 232. **Theoretical Mechanics.** I and II. 3 Hrs. per semester. Open to seniors. PR: Physics 1, 2, 3, and 4, or 105, 106, 107, and 108, and integral calculus. Mr. Colwell

233. **Introductory Electricity and Magnetism.** I. 3 Hrs. Open to seniors. PR: Physics 105, 106, 107, and 108, and integral calculus. Mr. Thomas

234. **Introductory Electricity and Magnetism.** II. 3 Hrs. Continuation of Physics 233, which is prerequisite. Mr. Thomas

**241, 243, 245, 247. Physics Seminar.** I. 1 Hr. Open to seniors and graduates. Discussion of modern research in Physics. Mr. Colwell

**242, 244, 246, 248. Physics Seminar.** II. 1 Hr. Similar to Physics 241. Mr. Colwell

**249, 250. Intermediate Laboratory and Special Topics.** I and II. 2 to 4 Hrs. per semester. Open to seniors who major in physics. PR: Physics 105, 106, 107, and 108, and calculus. Mr. Colwell and Mr. Ford

**Graduate Division**

**381. Physical Optics.** I. 3 Hrs. Mr. Molby

**382. Physical Optics.** II. 3 Hrs. A continuation of Physics 381. Mr. Molby

**383. The Kinetic Theory of Gases and Molecular Physics.** I. 3 Hrs. PR: Physics 1, 2, 3, and 4, or Physics 105, 106, 107, and 108, and integral calculus. Mr. Thomas

**384. The Kinetic Theory of Gases and Molecular Physics.** II. 3 Hrs. A continuation of Physics 383. Mr. Thomas

**385, 386. Quantum Mechanics.** I and II. 3 Hrs. per semester. Mr. Thomas

**387, 388. The Differential Equations of Physics.** I and II. 3 Hrs. per semester. Mr. Thomas

**391, 392. Advanced Electricity and Magnetism.** I and II. 3 Hrs. per semester. Mr. Colwell

**397, 398. Research.** I and II. 4 to 6 Hrs. per semester. Mr. Colwell and Staff

## Political Science

Professor FRASURE; Assistant Profeshor COHEN;* Instructor Ross;* Lecturer PENCE

Students who expect to select political science as their major subject should, while in the lower division, receive credit for Political Science 5 and 6, History 1, 2, 52, 53, and Economics 1 and 2 or Sociology 1. Humanities 1, 2, may be substituted for History 1, 2. Political Science 5 and 6 constitute the basic work in this department, and they, or their equivalent, are prerequisite to all courses in the upper division. The major requirement is 18 hours in upper-division courses. There should be a first minor of 12 hours in upper-division courses in history or economics, and a second minor of 6 hours in upper-division courses in the other subject. With the approval of the departmental adviser, part of the required work in the major may be taken in the College of Law.

### COURSES SUGGESTED FOR POLITICAL SCIENCE MAJORS

NOTE: Credit hours are shown in parentheses after course designations.

FIRST YEAR, FIRST SEMESTER: English **1** (3); biology (4); French or German (3); History **1** (3); or Humanities **1** (4); military science (1); physical education (1). Total, 14 to 16 hrs.

*On leave, 1944-1945.

FIRST YEAR, SECOND SEMESTER: English 2 (3); botany or zoology (4); French or German (3); History 2 (3); or Humanities 2 (4); military science (1); Physical Education (1). Total, 14 to 16 hrs.

SECOND YEAR, FIRST SEMESTER: Political Science 5 (3); French or German (3); History 52 (3); Economics 1 (3); Psychology 1 or Sociolgy 1 (3); military science (2); or physical education (1); elective (2).

SECOND YEAR, SECOND SEMESTER: Political Science 6 (3); French or German (3); History 53 (3); Economics 2 (3) Philosophy 4 (3); military science (2) or physical education (1); elective (2).

## COURSES OF INSTRUCTION[1]

### Lower Division[2]

**5. The Principles and Practices of Government: The American Federal System.** I, II. 3 Hrs. Primarily for sophomores. Staff

**106. American State and Local Government.** I, II. 3 Hrs. Staff

### Upper Division

**104. Contemporary European Political Institutions.** I. Mr. Frasure

**107. American City Government.** II. 3 Hrs. Staff

**202. Political Parties and Public Opinion.** I. 3 Hrs. Mr. Cohen

**207. The Administrative Process.** I. 3 Hrs. Staff

**208. The Administrative Process.** II. 3 Hrs. Continuation of Course 207. Staff

**209. The Legislative Process.** I. 3 Hrs. Staff

**210. British Government and Practical Politics.** II. 3 Hrs. Mr. Frasure

**213. Modern Dictatorships.** I. 2 or 3 Hrs. Mr. Frasure

**216. Comparative Political Institutions.** II. 3 Hrs. Mr. Frasure

**219. History of Political Thought: Plato to Machiavelli.** I. 3 Hrs. Required of majors. Mr. Cohen

**220. History of Political Thought: Machiavelli to the Present.** II. 3 Hrs. Required of majors. Mr. Cohen

**221. Recent and Contemporary Political Thought.** II. 3 Hrs. Mr. Cohen

**222. American Constitutional Principles.** II. 3 Hrs. Mr. Cohen

**223. International Law.** I. 3 Hrs. Mr. Cohen

**260. International Relations.** I. 3 Hrs. Mr. Frasure

**261. International Relations.** II. 3 Hrs. (Continuation of 260). Mr. Frasure

### Graduate Division

**301. Methods of Research in Political Science.** I. 2 to 4 Hrs. Mr. Frasure

**302. Methods of Research in Political Science.** II. 2 to 4 Hrs. Mr. Frasure

[1]Regular elective for Arts and Science students.
[2]These courses are prerequisite to all upper-division work in the department.

**303. Selected Problems in International Relations.** I. 2 to 4 Hrs. Mr. Frasure

**304. Selected Problems in International Relations.** II. 2 to 4 Hrs. Mr. Frasure

**307. Selected Problems in State and Local Government.** I. 2-4 Hrs. Staff

**308. Selected Problems in State and Local Government.** II. 2-4 Hrs. Staff

**360. Thesis.** I and II. 2 to 4 Hrs. Staff

## Public Speaking

Assistant Professor FEAR; Instructors MEEKS and BOYD

The instruction in this department aims to serve the following ends, which are both cultural and practical: to prepare men and women to meet the ever increasing demand for effective speaking in social, business, and professional life; to prepare qualified teachers in public speaking, debate, reading, and drama in secondary schools and colleges; to train men and women for public life as lecturers, readers, actors, salesmen, demonstrators, etc.; to enlarge the student's oral vocabulary, his ability to think quickly and logically in the presence of an audience; to develop his interpretative and dramatic powers; and to give general cultural training to all who seek greater enjoyment from reading good literature and attending the theatre.

**Forensic Activities.** An extensive program of intramural and intercollegiate debate and oratorical contests is fostered by the department in conjunction with Delta Sigma Rho, the honorary forensic fraternity.

**Plays.** The University Players in conjunction with the classes in dramatics presents a regular program of plays affording ample opportunity for student participation. In addition, numerous other public and semi-public performances are arranged to provide practical experience for the less advanced students. Membership in Alpha Psi Omega may be earned by superior work in the various productions.

**Public Appearances.** Numerous opportunities are afforded advanced students of speech to appear before clubs, schools, churches, and civic associations as speakers, readers, and story tellers. Advanced students and faculty members also present a series of afternoon recitals.

**Majors.** A minimum of 30 semester hours is required of majors, and 15 semester hours of speech minors. For those selecting speech as a second teaching field the following requirements totaling 24 hours are necessary:

| | Course | Hours |
|---|---|---|
| 3. | Beginning Voice and Diction | 3 |
| 11. | Beginning Public Speaking | 3 |
| 113. | Beginning Debating | 3 |
| 240. | Speech Correction | 3 |
| 137. | Stage Direction | |
| or | | |
| 139. | Play Production | 3 |
| | Electives | 9 |

## COURSES OF INSTRUCTION

### Lower Division

3. **Beginning Voice and Diction.** I, II. 3 Hrs. Drills for developing proper breath support and for producing a strong, flexible, resonant voice. Coordination of mind and voice. Voices recorded and analyzed, with corrective exercises prescribed. Mrs. Fear

6. **Beginning Acting.** I, II. 3 Hrs. Drills for developing muscular control; for overcoming fear inhibitions; for rendering the body expressive of thought and emotion. Coordination of mind and body. Mr. Boyd

11. **Beginning Public Speaking.** I, II. 3 Hrs. Study and application of the principles of practical public speaking. Practice in the composition and delivery of speeches intended to effect a definite audience response. Parliamentary law and procedure. Staff

13. **Beginning Public Speaking.** I, II. 2 Hrs. For engineering students only. Staff

15. **Advanced Public Speaking.** I, II. 3 Hrs. A continuation of Course 11 with greater emphasis upon individual problems of delivery and composition. Staff

29. **Beginning Oral Interpretation or Reading Aloud.** I, II. 3 Hrs. Development of mental and emotional responsiveness to the printed page. Study of recording of well-known speakers and readers. Practice in reading all types of literature. Mrs. Fear

### Upper Division

100. **Theatrical Make-up.** I, II. 2 Hrs. Mr. Boyd

109, 110, 111, 112. **Verse Choir.** I, II. 1 Hr. Mrs. Fear

113. **Beginning Debating.** I, II. 3 Hrs. Mr. Meeks

117. **Extemporaneous Speaking.** I, II. PR: Course 11. Mr. Meeks

118. **Public Discussion.** I, II. PR: Course 11. Theory and practice of the various forms of group discussion such as the forum, the panel and the symposium. Mr. Meeks

119. **Parliamentary Law and Procedure.** II. 1 Hr. Staff

121. **Advanced Voice and Diction.** I, II. 3 Hrs. PR: Course 3. Mrs. Fear

124. **Radio Workshop.** I, II. 3 Hrs. Staff

125. **Radio Dramatics.** I, II. 3 Hrs. Staff

129. **Advanced Oral Interpretation.** I, II. 3 Hrs. Mrs. Fear

130. **The Art of Story-telling.** I, II. 3 Hrs. Principles involved in effective presentation of stories, with practical experience in the classroom and before audiences. Stories of all types for adults and children. Mrs. Fear

132. **Advanced Acting.** II. 3 Hrs. PR: Course 6. Mr. Boyd

135. **Stage Craft.** I, II. 3 Hrs. Problems of plays from the standpoint of the technician. The problems of scenery design and construction, lighting, properties, and costumes studied through lectures, demonstrations, and laboratory. Staff

137. **Stage Direction.** I. 3 Hrs. Mr. Boyd

**139. Play Production.** II. 3 Hrs. Mr. Boyd

**140, 141, 142. Extra-curricular Speech Activities.** I, II. 1 to 3 Hrs. The head of the department may grant credit for any extra-curricular speech activity which is assigned and directed by a member of the speech faculty. Staff

**143. Theatre Workshop.** I, II. 1 to 3 Hrs. For the production of University plays and the informal stimulation of interest in creative arts. PR: course 135. Staff

**150. Speech Anatomy.** I, II. 3 Hrs. Anatomical and physiological study of the speech mechanism. Detailed study of the muscles and bony structures of the mouth, nose, pharynx, and larynx. Primarily for pre-medical students and students of speech pathology. Staff

**160. Business and Professional Speech.** II. 2 Hrs. Mr. Meeks

**215. Persuasion.** I, II. 3 Hrs. Mr. Meeks

**220. Advanced Debating.** II. 3 Hrs. PR: Course 113. Mr. Meeks

**222. Oral Interpretation of Poetry.** I, II. 2 Hrs. PR: Course 129. Mrs. Fear

**228. Professional Reading.** I, II. 2 Hrs. For advanced majors only. Mrs. Fear

**240. Speech Correction.** I, II. 3 Hrs. Mr. Meeks

**241. Speech Pathology.** I, II. 3 Hrs. Mr. Meeks

**SPEECH CLINIC.** I, II. Students in speech courses found to possess speech defects will be required to attend the clinic for diagnosis and treatment. In so far as time will permit, the services of the clinic will be made available to any student of the University.

**VOICE AND DICTION CLINIC.** I, II. Students in speech courses needing special attention to problems of breathing and voice placing and diction will be assigned to this clinic. Mrs. Fear

## Romance Languages and Literatures

Professors STATHERS, DARBY, and SPIKER; Associate Professors MITRANI and ASHBURN; Assistant Professors MANNING and MCBRIDE; Instructor SINGER

Courses 1 and 2 or two years of high-school credit will be required for entrance to courses 5, 6, 107 and 108. Usually students who have had two years' study of the language in high school should take courses 5 and 6. Students who have done three years of work in high school should take courses 107 and 108.

Prospective major students, and students who expect to do more advanced work in language, should not take more than 6 hours in courses 5, 6, 7, and 8.

Students whose grades have consistently fallen below B in language work in the lower division should not select Romance languages as a major subject.

No student who has not completed French 109, 110, 115, 116, and 231 or Spanish 109, 211, 212, 221, and 222 will be recommended as a teacher of these subjects.

In order to be recommended by this Department for the degree of Bachelor of Arts a student must have completed, in addition to special requirements for the A. B. degree, one of the following combinations:

### PROGRAM FOR MAJOR STUDENTS

NOTE: Credit hours are shown in parentheses after course designations.

FRENCH: French **109, 110, 115, 116, 221,** and **222** (3 each); **231** (2); Spanish (6 to 12).

SPANISH: Spanish **109, 110, 211, 212, 221,** and **222** (3 each); French (9 to 12).

### SUGGESTED DISTRIBUTION OF COURSES

FIRST YEAR: One Romance language, 6 hrs.; English **1** and **2** (6); a laboratory science, 8; physical education, 2; military science (when required), 2; electives, 8 to 10 hrs.

SECOND YEAR: Two Romance languages (6 hrs. each), 12 hrs.; military science (when required), 2; electives and lower-division preparation for minor subjects, 18 to 20 hrs.

THIRD YEAR: French or Spanish **109** and **110** (if not completed in second year) 6 hrs.; French **115** and **116** or Spanish **211** and **212**, 6; minor subject and electives, 20 hrs.

FOURTH YEAR: French or Spanish **221** and **222**, 6 hrs.; French **231** or elective in Spanish, 2; minor subject and electives, 24 hrs.

### COURSES OF INSTRUCTION

#### FRENCH

##### Lower Division

**1. Elementary French.** I, II. 3 Hrs. Staff

**2. Intermediate French.** I, II. 3 Hrs. Staff

**5. Contemporary Fiction.** I, II. 3 Hrs. Staff

**6. Contempororay Drama.** II. 3 Hrs. Staff

##### Upper Division

**103. Elementary Conversation.** I. 3 Hrs. PR: 6 hours of French, or equivalent. Mr. Stathers

**104. La Langue Pratique.** II. 2 Hrs. PR: 6 hours of French, or equivalent. Mr. Stathers

**107. Advanced Readings.** I. 3 Hrs. Mr. Mitrani

**108. Advanced Readings.** II. 3 Hrs. Mr. Mitrani

**109. Grammar and Pronunciation.** I. 3 Hrs. For sophomores or juniors. PR: 12 hours of French, or equivalent. Staff

**110. Advanced Conversation.** II. 3 Hrs. For sophomores or juniors. PR: French 109 or equivalent. Staff

**115. The Classical School.** I. 3 Hrs. PR: 12 hours of French, or equivalent. Mr. Darby and Mr. Spiker

**116. The Classical School After Moliere.** II. 3 Hrs. PR: French 115. Mr. Darby and Mr. Spiker

217. **Civilization Francaise.** I. 2 Hrs. PR: French 115 and 116. Mr. Spiker

221. **The Romantic Movement.** I. 3 Hrs. PR: French 115 and 116. Mr. Stathers

222. **French Literature Since 1850.** II. 3 Hrs. PR: French 221. Mr. Stathers

223. **The Problem Play.** I. 2 Hrs. PR: French 115 and 116. Mr. Darby

224. **Historical Novel in the Nineteenth Century.** II. 2 Hrs. PR: French 115 and 116 Mr. Darby

†226. **Literary Criticism in the Nineteenth Century.** II. 2 Hrs. PR: French 221 and 222. Mr. Spiker

†229. **Literature of the Sixteenth Century.** I. 2 Hrs. PR: French 115 and 116. Mr. Spiker

†230. **The Sixteenth Century After 1550.** II. 2 Hrs. PR: French 115 and 116. Mr. Spiker

231. **Phonetics and Pronunciation.** II. 2 Hrs. PR: 18 hours of French, or equivalent. Mr. Stathers

237. **Moliere.** II. 2 Hrs. PR: French 115 and 116. Mr. Spiker

†243. **Etude du vocabulaire.** I. 2 Hrs. PR: French 109 and 110. Mr. Stathers

†244. **Explication de textes.** II. 2 Hrs. PR: French 109 and 110. Mr. Stathers

†275. **Theatre of Eighteenth Century.** I. 2 Hrs. PR: French 115 and 116. Mr. Darby

†276. **Voltaire.** II. 2 Hrs. PR: French 115 and 116. Mr. Darby

†281. **Topic in Romantic Period.** I. 2 Hrs. PR: French 115 and 116. Mr. Stathers

†282. **Topic in Contemporary Period.** II. 2 Hrs. PR: French 115 and 116. Mr. Stathers

### Graduate Division

391. **Seminar.** I. 2 to 5 Hrs. The origin of French comedy relative to native and foreign elements in its composition. Mr. Spiker

392. **Seminar.** II. 2 to 5 Hrs. The development of the theory of tragedy before the seventeenth century. Mr. Spiker

395. **Seminar.** I. 2 to 5 Hrs. Individual study of some subject chosen from the literature of the first half of the nineteenth century. Mr. Stathers

396. **Seminar.** II. 2 to 5 Hrs. A critical study of some phase of literature of the second half of the nineteenth century. Mr. Stathers

## SPANISH

### Lower Division

1. **Elementary Spanish.** I, II. 3 Hrs. Staff

2. **Intermediate Spanish.** I, II. 3 Hrs. Continuation of Spanish 1. Staff

5. **Contemporary Fiction.** I. 3 Hrs. Staff

6. **Contemporary Drama.** II. 3 Hrs. Staff

†Omitted, 1944-45.

### Upper Division

**103. Elementary Conversation.** I. 3 Hrs. PR: 6 hours of Spanish, or equivalent. Mr. Ashburn

**104. La Lengua Practica.** II. 3 Hrs. PR: 6 hours of Spanish, or equivalent. Mr. Ashburn

**109. Grammar and Conversation.** I. 3 Hrs. For sophomores or juniors. Mr. Ashburn

**110. Advanced Conversation.** II. 3 Hrs. PR: Spanish 109, or equivalent. Mr. Ashburn

†**115. Lyric Poetry.** I. 3 Hrs. PR: 12 hours of Spanish, or equivalent. Mr. Ashburn

†**116. Civilization and Culture.** II. 3 Hrs. PR: 12 hours of Spanish, or equivalent. Mr. Ashburn

**211. Nineteenth Century Literature to 1870.** I. 3 Hrs. PR: 12 hours of Spanish, or equivalent. Mr. Ashburn

**212. Spanish Literature Since 1870.** II. 3 Hrs. PR: 12 hours of Spanish, or equivalent. Mr. Ashburn

**217. Spanish American Literature and Culture.** I. 3 Hrs. PR: 12 hours of Spanish, or equivalent. Mr. Mitrani

**218. Spanish American Literature and Culture.** II. 3 Hrs. Continuation of Course 217. PR: 12 hours of Spanish, or equivalent. Mr. Mitrani

**221. Literature of the Golden Age.** I. 3 Hrs. PR: 18 hours of Spanish, or equivalent. Mr. Ashburn

**222. The Golden Age after Lope de Vega.** II. 3 Hrs. PR: Spanish 221. Mr. Ashburn

**223. Estudios de Estilo.** I. 3 Hrs. PR: 18 hours of Spanish, or equivalent. Mr. Ashburn

**224. Explicacion de Textos.** II. 3 Hrs. PR: 18 hours of Spanish, or equivalent. Mr. Ashburn

### Graduate Division

**395. Sixteenth Century Literature.** I. 3 Hrs. Mr. Ashburn

**396. Old Spanish.** II. 3 Hrs. Mr. Ashburn

## ITALIAN

### Lower Division

**1. Elementary Italian.** I. 3 Hrs. Staff

**2. Intermediate Italian.** II. 3 Hrs. Continuation of Italian 1. Staff

**5. Contemporary Readings.** I. 3 Hrs. Staff

**6. Advanced Readings.** II. 3 Hrs. Staff

### Upper Division

†**109. Composition and Conversation.** I. 3 Hrs. Mr. Darby

†**110. Advanced Conversation.** II. 3 Hrs. Mr. Darby

†Omitted, 1944-45.

†115. **Italian Literature.** I. 3 Hrs. General survey. Mr. Darby

†116. **Italian Literature.** II. 3 Hrs. Continuation of course 115. Mr. Darby

†211. **One Italian Author.** I. 3 Hrs. PR: 12 hours of Italian or equivalent. Mr. Darby

†212. **Dante.** II. 3 Hrs. PR: 12 hours of Italian, or equivalent. Mr. Darby

### PORTUGUESE

#### Lower Division

†1. **Elementary Portuguese.** I. 3 Hrs. Staff

†2. **Intermediate Portuguese.** II. 3 Hrs. Continuation of Portuguese 1. Staff

## SOCIAL WORK

Professor SUNLEY and Assistant Professor HOFFMAN; Lecturers DICKEY, DOLCE, JOHNSON, LAYMAN, and THOMAS

### PURPOSE

The Department of Social Work provides a professional curriculum for the preparation of competent young men and women to meet the ever-increasing demand for trained personnel in both public and private social-work agencies. Social work deals with human relationships; its objective is that of helping persons to achieve more satisfying lives both as individuals and as members of social groups. Therefore it is the aim of this department, through carefully selected courses and faculty supervision of all field work, to aid students to acquire a broad theoretical and practical knowledge, including a historical perspective, of the different areas of social work.

### GENERAL STATEMENT

The Department of Social Work is a member of the American Association of Schools of Social Work (the national accrediting body for professional schools of social work) and offers, on a graduate level, a one-year social-work curriculum (30 semester hours of work) which leads to a professional Certificate of Social Work. In addition, the department makes available a one-year junior professional curriculum for seniors which leads to a B. S. degree with a major in social work. This undergraduate program is designed to prepare students for the beginning positions in public assistance, child welfare, counseling, housing, social insurance, employment services, etc. On the other hand, students who plan to make social work a life career, who want to be eligible for appointment to the higher positions, or who want later to obtain graduate work in a specialized field should continue their social-work preparation and obtain the graduate work leading to the professional Certificate of Social Work. All graduate work, including the field-work courses, may be used to fulfill the class-work and field-work requirements for membership in the American Association of Social Workers.

Public social services in West Virginia were greatly expanded by the passage of the Federal Social Security Act of 1935 and by the West Virginia

†Omitted, 1944-45.

Public Welfare Law of 1936. In addition, the war has created an unprecedented demand for professionally trained social workers. More than 60 million men and women of this country are now in the armed forces or in the war industries. The result is that we are confronted with a serious shortage of case workers for our wartime agencies, of medical and psychiatric workers for our Army and Navy hospitals, of child-welfare workers for children's day-care programs, of group workers for leisure-time programs in army camps and in defense areas, of counsellors in private industry, etc. Our civilian agencies, now engaged in many war activities, also need skilled workers to assist draft boards, to aid in the transportation of war workers and their families, to care for servicemen's dependents, to administer civilian war assistance funds, to carry out programs for the rehabilitation of injured soldiers, and to participate in many other similar activities.

## ADMISSION REQUIREMENTS

### Lower Division

Students who have completed 92 semester hours of work or more in an accredited educational institution may be admitted, upon the basis of a written application, to the department of social work for the junior professional curriculum. Application should be made at least three weeks before the beginning of the semester for which registration is desired. Application forms may be obtained from the head of the department.

Each applicant is evaluated on the basis of his scholarship, personality, health, and other characteristics. Students who have not had the pre-social work curriculum in the department of sociology[1] should have at least 15 semester hours in economics, political science, psychology, sociology, or selected courses in history. In addition, the applicant must be willing to provide references, to arrange for a personal interview if necessary, and to furnish written materials which may be requested.

### Upper Division

Applicants holding Bachelor's degrees from West Virginia University or from other institutions within the State approved by the State Board of Education and authorized to confer such degrees, or from institutions outside the State standardized by membership in one of the associations of colleges and secondary schools, will be considered for admission as graduate students in the department of social work. Candidates should apply to the head of the department and should present to the Registrar an official transcript of the credits upon which their Bachelor's degrees are based. Applications which have been approved and recommended by the head of the department are submitted to the Graduate Council for final approval.

Application should be made either in person or by a letter at least three weeks before the opening of the semester for which registration is desired. Application forms may be obtained from the Registrar.

Students who have taken the recommended pre-social work curriculum and the junior professional curriculum at West Virginia University will have fulfilled the undergraduate social-science requirements. Students who have

[1]For more detailed description of the pre-social work program in the department of sociology see page 180.

not had these undergraduate curricula should have an undergraduate background of at least 24 semester hours in the social sciences, including preferably at least 12 semester hours in one of the following fields: economics, political science, psychology, sociology or selected courses in history.

Students who have not fulfilled the undergraduate social-science requirements may be admitted to the department of social work on condition that they complete the necessary undergraduate requirements before they become eligible for a professional Certificate of Social Work. The head of the department determines the course needed to meet undergraduate deficiences.

All applicants for admission are asked to present evidence of good health and personal characteristics which will enable them to assume professional responsibilities.

## SPECIAL REQUIREMENTS FOR THE CERTIFICATE OF SOCIAL WORK

The professional Certificate of Social Work is awarded to those who meet the following requirements:

1. A minimum (including field work) of 30 semester hours of graduate social-work credit.
2. A minimum of two semesters of supervised field work in selected social agencies (450 clock hours).
3. A grade of C or better in all graduate work.

## FIELD WORK

On a graduate level the department of social work offers a total of two semesters of field work in family casework and child-welfare work. Field work is a basic requirement for the professional certificate, and it is developed under the joint supervision of the department and the participating agencies so that it is truly an educational experience. Four semester hours of credit represent 15 clock hours per week of clinical work each semester.

## LOANS AND SCHOLARSHIPS

Numerous loan funds and scholarships are available to properly qualified social-work students. For details see Part II of the General Catalogue.

## COURSES OF INSTRUCTION

### Lower Division[1]

220. **The Field of Social Work.** I. 3 Hrs. Introduction to various fields of social work and discussion of the history, scope, organization, problems and methods of each. Mr. Sunley

230. **The History of Social Work.** II. 2 Hrs. The European and American social-welfare developments; designed to give the students an understanding of present-day practices and trends of social work. Mr. Sunley

260. **Problems of Child Welfare.** I. 3 Hrs. Methods, administrative problems, and standards relating to children in foster homes, children born out

[1]The junior professional curriculum also includes Agri. 271, Agricultural Problems and Organizations in West Virginia, II, 2 Hrs.; Home Ec. 160, Problems of Home Management and Family Living, I, 3 Hrs.; and Econ. 105, Public Welfare Accounting, I, 3 Hrs.

of wedlock, child-labor problems, children in institutions, child-welfare services, maternal and child-health services, and child-adoption problems. Mr. Sunley

251. **Introduction to Social Work.** I. 3 Hrs. Relationships of various professional workers to the problems of understanding and treating human behavior. Miss Hoffman

274. **Housing.** I. 3 Hrs. Urban and rural housing problems. Special attention to the historical material and current problems such as Federal and State legislation, community planning, new types of houses, tenant selection, methods of finance, legal difficulties, management, and war problems. Mr. Saposnekow

212. **Field-work Observation.** II. 2 Hrs. Observation of public-welfare administration and casework practice in selected social agencies. Field visits to public-welfare departments, private casework agencies, Federal Social Security Board offices, farm agencies, United States Employment Service offices, health agencies, etc., to observe their structure, scope, and function and to obtain limited participation in each program. PR: Social Work 251. Miss Hoffman

270. **Social Insurance.** II. 3 Hrs. History, principles, methods, and problems of workmen's compensation, old-age insurance, unemployment insurance, and health insurance in the United States and European countries. Mr. Sunley

281. **Introduction to Social Legislation.** II. 3 Hrs. This course focuses attention on current recommendations and legislative proposals concerning public assistance; governmental programs for the care of children, the sick, the mentally ill and defective; social insurance; housing; employment services; public health; recreation; etc.

### Graduate Division

301. **Casework.** I. 3 Hrs. Principles and methods of casework as illustrated by study and discussion of selected cases. Miss Hoffman

302. **Casework.** II. 3 Hrs. Continuation of Social Work 301 with special emphasis on casework in child welfare. PR: Social Work 301. Miss Hoffman

311. **Field Work.** I. 4 Hrs. At least 15 clock hours of field work each week in which the student assumes full responsibility under supervision for a selected group of cases. Clinical practice in county departments of public assistance. Enrollment limited to full-time professional social-work students; clock hours in the agency are arranged. PR or co-requisite: Social Work 301. Miss Hoffman

312. **Field Work.** II. 4 Hrs. Continuation of Social Work 311 with emphasis on child-welfare problems. PR: Social Work 301 or 311. Miss Hoffman

320. **Psychiatric Problems of Casework.** II. 2 Hrs. Concepts implied in our understanding of human growth and personality development. PR: Psychology 1 and Social Work 301. Miss Hoffman

344. **Domestic Relations and Allied Problems.** II. 2 Hrs. Selected legal problems such as divorce, non-support, desertion, parent-child relationships, guardianship and custody, adoption, illegitimacy, wage assignments, garnishments, and legal counsel for needy cases. Mr. Colson and Mr. Sunley

**351. Social Statistics.** I. 2 Hrs. Application of statistical methods to social problems and interpretation of statistics concerning dependency, mental illness, mental defectiveness, illiteracy, housing, unemployment, etc.
Mr. Sunley

**371. Medical Information.** I. 3 Hrs. Orientation in the problems of health and disease, supplemented by discussions of the case-work implications of medical problems. Medical School Staff, Lecturers, and Miss Hoffman

**304. Group Work and Community Relationships.** I. 3 Hrs. Theory and methods in group-work practice, program content and skills of group work, and supervisory administrative processes. Also study of communities, social problems and resources, nature of social work, organization of a community, and relationship to case work and group work.

**360. The Public Welfare Services.** I. 3 Hrs. Discussion of scope of public welfare, rise of public responsibility, and evolution and analysis of current public-welfare programs. Public-assistance services, as well as governmental responsibility for the care and protection of children, the sick, the mentally ill and defective, and legal offenders, are included.

**361. The Public Welfare Services.** II. 3 Hrs. Administrative principles and processes involved in the organization and operation of social agencies. Special attention is given to budgets; control of expenditures; job analyses; definition of operations; assignment of duties; development of lines of responsibility; coordination of services; staff supervision; relationship of executive to board, staff, and community; use of consultants; intake problems; staff development; office management; use of committees; public relations; and research.

**364. Research Methods.** II. 2 Hrs. Discussion of purposes; accepted methods of research including use of documentary sources, case studies, statistical analyses, and social surveys; techniques and tools of research such as sampling, interviewing, schedules, questionnaires and outlines, editing coding, and classification; and procedures such as choice of subject, delimiting the field, preparation and use of a bibliography, collection of data, analysis and interpretation of data, and presentation of the results of research.

## Sociology

Professor HARRIS and Associate Professor SAPOSNEKOW

The greatest number of opportunities in the social-work field today are in the public-welfare services, and preparation for these services requires a broad and intensive program in the social sciences and related fields including economics, history, political science, psychology, and sociology. Of these fields of knowledge, sociology, economics, and political science are especially important. Such an undergraduate pre-social work curriculum as described below is unique in that it cuts across departmental lines; its primary objective is to prepare students to make application for admission, if they have completed 92 semester hours or more of university work, to the junior professional curriculum and later to the graduate professional curriculum in the department of social work at this University.

## THE PRE-SOCIAL WORK CURRICULUM

| First Year | | | | Second Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Biology 1 or Psychology 3 | 4 | Biology 2 or Psychology 4 | 4 | Foreign language (if needed) | 3 | Foreign language (if needed) | 3 |
| Humanities 1 | 4 | Humanities 2 | 4 | Sociol. 1 or 101 | 3 | Sociol. 3 or 103 | 3 |
| English 1 | 3 | English 2 | 3 | Economics 1 | 3 | Economics 2 | 3 |
| Foreign language | 3 | Foreign language | 3 | History 52 | 3 | Polit. Sci. 5 | 3 |
| Physical educ. (men and women) | 1 | Physical educ. (men and women) | 1 | English 5 | 3 | Zoology 51 or 151 | 4 |
| Military science (men) | 1 | Military science (men) | 1 | Physical educ. (women) | 1 | Physical educ. (women) | 1 |
| | | | | Military science (men) | 2 | Military science (men) | 2 |
| | 15-16 | | 15-16 | | 16-17 | | 17-18 |

The recommended program for sociology majors who do no **not** intend to enter professional social work is, for the freshman and sophomore years, substantially identical with the preceding pre-social-work program. For juniors and seniors majoring in sociology, a somewhat more liberal use of electives is recommended than is desirable for pre-social-work majors.

| Third Year | | | | Electives for Upper-division Work | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *Subject* | *Hrs.* | *Subject* | *Hrs.* |
| Pol. Sci. 207 | 3 | Sociol. 105 | 3 | Sociol. 233 | 3 | Engl. 262 | 3 |
| Psych. 122 | 3 | Sociol. 241 | 3 | Sociol. 243 | 3 | Phil. 104 | 3 |
| Econ. 173 | 3 | Econ. 240 | 3 | Psych. 125 | 3 | Phil. 111 | 3 |
| Genetics 111 | 2 | Pol. Sci. 6(106) | 3 | Pol. Sci. 209 | 3 | Pol. Sci. 208 | 3 |
| Sociol. 210 | 3 | Econ. 262 | 3 | History 53 | 3 | Psych. 229 | 3 |
| Electives | 2 | Elective | 1 | History 134 | 3 | Pol. Sci. 202 | 3 |
| | — | | — | History 150 | 3 | Sociol. 231 | 3 |
| | 16 | | 16 | Engl. 160 | 2 | Sociol. 232 | 3 |

## COURSES OF INSTRUCTION

### Lower Division

***1. Introduction to Sociology.** I, II. 3 Hrs. Analysis of the social forces is followed by a description of social institutions and social processes. Staff

**3 or 103. Rural Sociology.** II. 3 Hrs. Distinctive characteristics and problems of rural society. Special attention to West Virginia. Mr. Harris

### Upper Division

**101. Introduction to Sociology.** I, II. 3 Hrs. Analysis of the social forces, social heritage, the more important social processes, of collective behavior, social control, and social change. Staff

**105. Urban Sociology.** II. 3 Hrs. Rise and growth of urbanism. Problems of population, health, housing and sanitation, education and recreation, poverty, and crime in the city. Mr. Saposnekow

**210. Marriage and the Family.** I. 3 Hrs. The modern family in its sociological, economic and legal aspects; courtship, parent-child interaction; problems of divorce and of birth control. Mr. Harris

*Sociology 1 or 101 is prerequisite to all other sociology courses.

231. **Race Relations Problems.** I. 3 Hrs. Problems of race relationships, with special reference to present-day aspects of the American Negro problem. Mr. Harris

232. **American Minority Peoples.** I. 3 Hrs. After a brief historical survey of immigration, the economic, industrial, political, and social phases of the problems are discussed. Mr. Saposnekow

233. **Problems of Crime and Delinquency.** I. 3 Hrs. Readings, research projects, and inspection trips. Mr. Saposnekow

234. **Social Pathology.** II. 3 Hrs. Readings, research projects, and inspection trips. Mr. Saposnekow

240. **Social Control.** I. 3 Hrs. The why and the how of social-control processes. Mr. Harris

241. **Community Organization.** II. 3 Hrs. Practical and theoretical aspects of community and group organization, with special reference to community resources. Mr. Harris

243. **Introduction to Anthropology.** I. 3 Hrs. A descriptive survey with emphasis on social anthropology. Mr. Saposnekow

246. **History of Social Thought.** II. 3 Hrs. Development of sociological theory since Comte and Spencer. Mr. Saposnekow

251. **Contemporary Social Problems.** I or II. 3 Hrs. Analytical study of selected social problems which involve economic and political as well as social factors. Mr. Harris

257. **Technology and Society.** I. 3 Hrs. Sociological problems created by the modern machine and by its application to the processes of production and distribution of economic goods. Mr. Harris

### Graduate Division

391. **Seminar in Current Sociological Literature.** I or II. 2 to 4 Hrs. Enrollment by consultation with instructor. Mr. Saposnekow

392. **Seminar in Social Institutions.** I, II. 2 to 3 Hrs. Mr. Saposnekow

395. **Research and Thesis.** I. 2 to 3 Hrs. Mr. Harris

396. **Research and Thesis.** II. 2 to 3 Hrs. Mr. Harris

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# The College of Education

## Functions

Through its undergraduate courses, its seminar, its laboratory schools, and its encouragement and direction of educational investigation and research, the College of Education aims to contribute to the educational efficiency of West Virginia by inculcating a liberal and more scientific conception of the functions of the public schools of the state and by providing the professional training of secondary-school teachers, principals, and supervisors, elementary-school principals and supervisors, city-school administrators, county superintendents, college teachers, educational counselors, and educational research specialists.

## Organization

The College of Education comprises the College with its resident courses of instruction and its facilities for research; the University Rural High School with its opportunities for observation, student teaching, directed supervision, and experimentation; and the Laboratory Elementary School with its opportunities for graduate study of the progress of pupils.

## The Standing Committees

SCHOLARSHIP: Miss Pollock and Messrs. Hill and Stemple.
LIBRARY: Messrs. Baldwin, Federer, and Wheat.

## Pre-Education Adviser

The degree of Bachelor of Science in Education requires four years of college work, the first two years of which are done in the College of Arts and Sciences under the supervision of Prof. Elizabeth M. Stalnaker, pre-Education adviser. The student registers in the College of Education for the last two years.

## Transfer Students

Applicants from junior colleges, normal schools, teachers colleges, colleges, other universities, or other colleges within this University will, upon receipt of official transcript, be admitted to this College with equal standing, provided the transcript shows graduation from a standard high school and the completion of 58 semester hours of approved freshman and sophomore work with an average of at least 1 honor point per credit hour on all work presented. Students from other colleges who contemplate transferring to this College should so order their courses of study as to meet junior standing and should be fulfilling the curricular requirements for the certification of teachers as stated in the latest revision of the Bulletin, *Teacher Certification Regulations at the University.*

## Admission to the College of Education

The requirements for admission to the College of Education are (1) graduation from any approved curriculum in a first-class high school and (2) 58 semester hours of approved college work with an average of at least one honor point per credit hour on all work presented.

### Upper-division Advisers

Each junior and senior in the College of Education will be assigned an adviser according to his field of major interest. The adviser will direct both his academic and his professional courses toward graduation and eligibility for certification.

### Requirements for Graduation

To be eligible for recommendation for the degree of Bachelor of Science in Education, a candidate must:

1. Comply with the general regulations, as announced in the General information section (Part II) of the Catalogue, concerning entrance, advanced standing, classification, examination, marks, honor points, etc.

2. Satisfy the General Requirements for certification, listed in the above Bulletin *(Teacher Certification Regulations at the University)*.

3. Complete the required 20 semester hours of approved courses in Education, listed in the above Bulletin.

4. Select and pursue two teaching fields.[1]

5. Adhere to the patterns, listed in the above Bulletin, in completing the prescribed number of hours in each teaching field.

6. Present 128 semester hours of approved college credit, with a general average of 1 honor point per credit hour and with an average of 1 honor point per credit hour in each teaching field and in Education.[2] (Only credit earned in West Virginia University will be used in computing honor points for graduation.) At least 100 of the 128 hours must be in academic subjects. Two hours of school health or hygiene may be included in the 100 hours. The candidate must have been enrolled in the College of Education for at least 26 credit hours.

7. Be at least 18 years of age, of good moral character, interested in educational work, and mentally, physically, and otherwise qualified to perform the duties of a teacher.

Fulfillment of the requirements for graduation from the College of Education qualifies a candidate to apply for recommendation for a West Virginia first-class secondary-school teaching certificate. For instruction on applying for a State certificate, see the above Bulletin.

## COURSES OF INSTRUCTION

Professors Allen, Baldwin, L. B. Hill, Hudelson, Noer, Parsons, Pollock, Stemple, and Wheat; Associate Professor Gaar; Assistant Professors Colebank and Cook; Assistant Teacher Trainer White; Instructors Boggess, Brochick, Coplin, Federer, Jamison, Smith, Soupart, Wilt, and Woofter; Teachers Baliker, Butler, Davis, Decoster, Dorsey, Fike, Fizer, Galbraith, Gates, Hancock, Meyer, Proudfoot, Roller, Semon, Wasmuth, and Watson; Substitute Teachers Eicher, Holsberry, and Ross.

Courses in Education are open only to students of junior, senior, and graduate standing. The following courses are required of high-school teachers for recommendation for a first-class certificate: Junior year, Ed. 106, 109, and 2-4 hours of approved electives; Senior year, Ed. 120, 150-170, 214, 224 and enough additional hours chosen from the following approved electives to meet the minimum requirement of 20 hours in Education: Ed. 101, 112, 136, 197, 203, 221, 222, 231, 233, 252, 281, 282, 284, 285, 291, 150-170 in a second teaching field, 224 (2 hrs.) in a second teaching field, and Psych. 1 (2 hrs.).

NOTE: For the kinds of graduate certificates for which the following courses are required or approved see page 188 of this Catalogue, and for the undergraduate certificate see the Bulletin, *Regulations Governing Teacher Selection, Guidance, Training, and Certification.*

[1]During the emergency, because of a shortage of teachers, candidates for the B. S. in Education degree will be permitted, but not encouraged, to graduate with only a first teaching field.

[2]Beginning July 1, 1946, each of these minimum honor-point averages will be 1.2.

### Undergraduate Division

**101. Introduction to Vocational Teaching.** II. 2 Hrs. A survey of the field of vocational education with particular emphasis on orientation as the foundation for occupational preparation. Mr. Allen

**106. Introductory Educational Psychology.** I, II. 3 Hrs. Should be taken in junior year. Mr. Baldwin, Mr. Hill, Miss Pollock, and Mr. Wheat

**109. Secondary Education.** I, II. 2 Hrs. Introduction to secondary-school teachers' problems of organization and administration not including instructional matters. Mr. Stemple

**112. High School Tests and Measures.** I, II. 2 Hrs. PR or parallel: Ed. 106. Mr. Stemple and Mr. Wheat

**115. Student Teaching in Elementary-school Music.** I, II. 2 Hrs. Observation and practice of teaching music to pupils in grades one to six in the University Laboratory Elementary School. Open to seniors in the School of Music who have completed 27 hours in Music and 7 semester hours in Education with an honor-point average in each and a general honor point average of 1.0. Opportunity for observation and practice is limited to one class period (one-half hour) each day each semester for 4 students. Attendance is required on alternate days, when instruction in Music is given, in each of the two classrooms of the Laboratory Elementary School. Miss Wasmuth

**116. Psychology of the Elementary-school subjects.** I. 2 Hrs. Mr. Wheat

**117. Materials and Methods of the Elementary School.** 2 Hrs. Mr. Wheat

**120. Principles of Teaching in Secondary Schools.** I, II. 2 Hrs. Open only to those who qualify for the student teaching block. Mr. Hill and Mr. Allen

**130. Materials and Methods in Elementary-school Music.** I, II. 2 Hrs. (To be carried simultaneously with Education 115). Miss Wasmuth

**135. The Elementary-school Curriculum.** 2 Hrs. Mr. Wheat

**136. High-school Program of Studies.** I, II. 2 Hrs. Principles governing the selecting of subjects and subject matter for secondary schools with special emphasis on possibilities within given subjects. PR: Ed. 109. Mr. Stemple

**150-170. Materials and Methods of High-school Teaching.** I, II. 2 Hrs. Special methods in the various secondary-school teaching fields. For West Virginia certification these courses are an integral part of Ed. 224. May also be chosen as a two-hour elective by students who are registered for student teaching in other fields.

The various sections of this course, with their instructors, follow:

**150. Biology.** I, II. 2 Hrs. _____

**151. Science.**[1] 2 Hrs. Mr. Allen

**152. Physical Education.** I, II. 2 Hrs. Mr. Eicher and _____

**155. Library Science.** I, II. 2 Hrs. Miss Hancock

**160. Agriculture.** I, II. 3 Hrs. Mr. Gaar or Mr. Parsons

**161. English.** I, II. 2 Hrs. Miss Brochick, Miss Jamison, Miss Soupart, and Miss Woofter

[1]A special section available as an elective for those selecting some science as a second or third teaching field. All branches of science are considered. Registration not necessarily concurrent with Ed. 120 and 224.

**163. Home Economics.** I, II. 2 Hrs. Miss Boggess

**164. Industrial Arts.** I, II. 2 Hrs. Mr. Fike

**165. Mathematics.** I, II. 2 Hrs. Miss Wilt

**166. Physical Science.** I, II. 2 Hrs. Mr. Federer

**167. Social Science.** I, II. 2 Hrs. Miss Coplin

**168. Art.** I, II. 2 Hrs. Mrs. Roller

**169. Music.** I, II. 2 Hrs. ---------- and Miss Wasmuth

**170. Commerce.** I, II. 2 Hrs. Miss Smith

**197. Survey of Vocational Education.** I. 2 Hrs. The relationship to each other and to the public-school program of vocational agricultural, vocational home economics, trade and industrial education, commercial education, distributive education, rehabilitation, emergency defense training. Mr. Allen

**203. Organization and Administration of Adult Education.** II. 2 Hrs. Mr. Allen

**214. Advanced Educational Psychology.** I, II. 2 Hrs. PR: Ed. 106. Not open to juniors. Should be taken parallel or following Ed. 224. Open for graduate credit only to those with 6 semester hours of prerequisite work in psychology and/or educational psychology. Mr. Baldwin and Mr. Wheat

**221. Audio-Visual Instruction.** I, II. 2 Hrs. Uses of sensory techniques in teaching. Restricted to seniors and graduates. Mr. Allen

**222. Current Practices in Secondary Education.** I, II. 2 Hrs. Especial emphasis is placed on the Eight-year Experiment in the thirty schools. Miss Pollock

**224. Student Teaching.** I, II. 3 Hrs. PR: Evidence of teaching traits as shown by personal attitudes, industry, character, general intelligence, good speech habits, physical and mental fitness; completion of approximately 75% of the hours required in each of two teaching fields and at least 7 semester hours in Education, with a general honor-point average of 1.0 and an average of 1.0 in each teaching field and in Education. This course is to be taken simultaneously with Ed. 120, Principles of Teaching in Secondary Schools, and Ed. 150-170. Ed. 224 will be offered in the University Rural High School or in other student teaching centers. One half of the students should reserve a full half day each morning and the other half should reserve the entire afternoon for this work. All students must reserve Monday, 7 to 9 p. m. bi-weekly, for teachers' meetings. Application for registration should be made to Mr. L. B. Hill early in the preceding semester. Student teaching will be given in the following subject-matter fields: agriculture, art, biology, commerce, English, home economics, industrial arts, library science, mathematics, music, physical education, physical science and social studies. Mr. Hill, Mr. Colebank, Mr. Gaar or Mr. Parsons, and U. H. S. Faculty

**231. Philosophy of Education.** I. 2 Hrs. Mr. Baldwin

**233. Educational Sociology.** II. 2 Hrs. Mr. Baldwin

**246. Principles of Supervision.** II. 2 Hrs. A basic course dealing with the general principles of elementary-school, junior high-school, and senior high-school supervision as applied to the sifted content of each subject. Mr. Hill

251. **Cinematography.** 2 Hrs. Practical participation in planning and producing motion pictures for use in teaching, for supporting the school's public relations program, and in educational research. Mr. Allen

252. **Vocational Guidance.** I. 2 Hrs. PR: Ed. 106, 109, 112. Programs and techniques in occupational orientation. Mr. Allen

258. **Education for Special Groups.** II. 2 Hrs. A study of the techniques and organization of instruction of adults and teen-age youth not in attendance at ordinary day-school classes. Part-time, evening, and dull-season classes are among the educational projects considered. Mr. Allen

262. **Vocational Home Economics in Secondary Schools.** I, II. 2 Hrs. PR or parallel: Ed. 120, 163, and 224; home economics, 25 hours. Primarily for seniors and teachers of home economics. Miss Noer

266. **Adult Education in Homemaking.** 2 Hrs. Survey of current trends and present activities in the field of adult education. Organization of adult classes, development of unit outlines; consideration of teaching methods; illustrative material and bibliography for use in adult classes. Staff

281. **History of Elementary and Secondary Education in the United States.** II. 2 Hrs. Mr. Hill

282. **Development of Modern Education.** I. 2 Hrs. Comparative study of schools in the leading nations of Europe since 1800. Miss Pollock

284. **Pupil-personnel Administration.** I. 2 Hrs. Pupil accounting, guidance, extra-curricular activities, and control. PR: Ed. 106. Open only to seniors and graduates. Mr. Stemple

285. **The Junior High School.** II. 2 Hrs. PR: Ed. 106. Open only to seniors and graduates. Mr. Stemple

291. **Exploratory Reading.** I, II. 2 Hrs. For any teachers or administrators who feel the need for a wide acquaintance with books. The work is planned to meet the individual needs of students. Miss Pollock

294. **Organization of Industrial Arts.** I. 2 Hrs. An advanced course. Preparation of comprehensive programs of industrial arts at all scholastic levels. Mr. Allen

### Graduate Division

308. **Psychology of Arithmetic.** 2 Hrs. Mr. Wheat

309. **Psychology of Reading.** 2 Hrs. Mr. Wheat

316. **Psychology of Elementary School Subjects.** Mr. Wheat

322. **Organizing Programs of Audio-Visual Instruction.** 2 Hrs. PR: Ed. 221. An advanced course dealing with problems of planning extensive programs of using movie, talkie, radio, slides, charts, exhibits, etc., for instructional purposes. Mr. Allen

326. **Practice in the Supervision of Elementary-School Instruction.** 2 to 3 Hrs. PR. or parallel: Ed. 316 and Ed. 246. Mr. Wheat

327. **Demonstration and Practice in the Supervision of Secondary-School Instruction.** 2 to 3 Hrs. PR: Consent of instructor. An opportunity to observe approved processes in classroom supervision and to practice, under guidance, the art of improving classroom instruction. Mr. Hill

335. **The Elementary-School Curriculum.** 3 Hrs. Mr. Wheat

**336. The Secondary-School Curriculum.** I. 2 Hrs. Mr. Stemple

**339. Public-School Organization and Administration.** I. 2 or 3 Hrs. An orientation course for present and prospective school administrators, with emphasis upon the problems which grow out of the county unit. Required as a basic course of all who specialize in educational administration. PR: 20 hours of Education and consent of instructor. Mr. Baldwin

**340. Public-School Finance.** II. 2 or 3 Hrs. PR or parallel: Ed. 339 and consent of instructor. Mr. Baldwin

**341. School Buildings and Equipment.** I. 2 Hrs. PR or parallel: Ed. 339 and consent of instructor. Mr. Baldwin

**343. School Surveys.** 2 Hrs. Development of the educational survey as an instrument for improving educational procedures. PR or parallel: Ed. 339 and consent of instructor. Mr. Baldwin

**344. Staff-personnel Administration.** II. 2 Hrs. Selection, induction, direction, evaluation, improvement, and promotion of members of the supervisory, instructional, research, clerical, and maintenance staffs. PR or parallel: Ed. 339 and consent of instructor. Mr. Baldwin

**353. The Secondary-school Principal.** II. 2 to 3 Hrs. Open only to graduate students in Education with teaching experience in high school. Mr. Stemple

**356. The Elementary-school Principal.** 2 to 3 Hrs. PR or parallel: Ed. 316 and Ed. 339. Mr. Wheat

**357. Organization of Programs in Vocational Education.** 2 Hrs. Specific consideration of the development of practical training in agriculture, home economics, industry, and commerce with particular reference to their common elements and interdependence. The contribution in method and set-up which vocational education has made to current emergency programs. Mr. Allen

**360. Problem in Education.** I, II. 3 Hrs. One of the alternative requirements for the Master's degree in Education. (See Thesis or Option, below.) Staff

**361. Project in Education.** I, II. 1 to 2 Hrs. One of the alternative requirements for the Master's degree in Education. (See Thesis or Option, below.) Staff

**362. Thesis in Education.** I, II. 6 Hrs. One of the alternative requirements for the Master's degree in Education. (See Thesis or Option, below.) Staff

**367. Teaching the Social Studies in Elementary and Secondary Schools.** 2 Hrs. Staff

**372. Statistical Methods in Education.** I. 2 Hrs. PR: 20 hours of Education, including Ed. 112 or equivalent. Mr. Hudelson

**390. Advanced Course for Teachers of English.** 2 Hrs. PR: Consent of instructor. Miss Pollock

**392. Materials for General Reading.** II. 2 Hrs. Study of materials for secondary schools and for adult classes. PR: Ed. 291. Miss Pollock

**399. Techniques of Educational Research.** II. 2 Hrs. PR or parallel: Ed. 372. Mr. Hudelson

**THESIS OR OPTION.** Each candidate for the Master's degree with a major in Education shall pursue one of the four following alternative routes. (For course announcements, see above.)

A. Thirty semester hours, including six semester hours of research (Education 362, Thesis) and the remaining hours in approved course work. Examination (oral, written, or both, at the discretion of the individual members of the committee) by the candidate's advisory committee.

B. Thirty semester hours, including three semester hours on a problem (Ed. 360, Problem) satisfactory to the adviser only, and 27 semester hours of approved course work. Examination (oral, written, or both, at the discretion of the individual members of the committee) by an advisory committee of three from the College of Education.

C. Thirty semester hours, including one or two semester hours on a project (Ed. 361, Project), on which the candidate shall make a satisfactory written report, and 28 or 29 semester hours of approved course work. Examination (oral, written, or both, at the discretion of the individual members of the committee) by the advisory committee of at least three, one or more of whom shall represent fields other than Education.

D. Thirty-six semester hours, including a minimum of 10 semester hours of approved course work outside the field of Education. A maximum of six semester hours may, by prior written agreement with adviser and Graduate Council, be accepted from an approved institution other than West Virginia University, provided the total of all work for the Master's degree by extension and from another institution shall not exceed 15 semester hours. Examination (oral, written, or both, at the discretion of the individual members of the committee) by a committee of at least three, one or more of whom shall represent fields other than Education.

## GRADUATE PROFESSIONAL CURRICULA

### THE CURRICULUM FOR SUPERINTENDENTS LEADING TO THE DEGREE OF MASTER OF ARTS

Required for Master's Degree ..... 24 Hours

Ed. 231. Philosophy of Education, **OR** Ed. 233, Educational Sociology

Ed. 246. Principles of Supervision

Ed. 316. Psychology of Elementary-School Subjects.

Ed. 326. Practice in the Supervision of Elementary-School Instruction

Ed. 335. The Elementary-School Curriculum, **OR** Ed. 336, The Secondary-School Curriculum

Ed. 339. Public-School Organization and Administration

Ed. 340. Public-School Finance

Ed. 353. The Secondary-School Principal

Ed. 356. The Elementary-School Principal

Ed. 372. Statistical Methods in Education

Ed. 399. Techniques of Educational Research.

Ed. 360. Problem in Education or Thesis

Electives in Education for Master's Degree (to be chosen with adviser's approval) ..... 4 Hours

Ed. 203. Organization and Administration of Adult Education, or Ed. 357, Organization and Administration of Vocational Education

Ed. 341. School Buildings and Equipment, or Ed. 343, School Surveys, or Ed. 344, Staff Personnel Administration

Other Electives for Master's Degree (to be chosen with adviser's approval) ..... 2 Hours

Total for Master's Degree ..... 30 Hours

NOTE:—For those who already hold a Master's degree and who wish to qualify for the University's recommendation for a Superintendent's Certificate, the following courses listed above will satisfy:

Required ..... 16 Hours
- General Administration: Ed. 339; 340; 203 or 357; 341 or 343 or 334 ... 4-8 Hrs.
- Elementary-School Administration: Ed. 326 and 356 ..... 4 Hrs.
- Secondary-School Administration: Ed. 246; 327; 353 ..... 4 Hrs.

Electives ..... 4 Hours
Ed. 284; 335; 336; 344; 372

Other requirements for the Superintendent's Certificate are 5 years' experience in the public schools of West Virginia, 3 of which shall have been as principal of either high school or elementary school or as superintendent or assistant superintendent in county and/or district in West Virginia; and a health certificate.

Since most of the courses listed above have prerequisites, the consent of the instructor must be obtained before enrollment.

## THE CURRICULUM FOR HIGH-SCHOOL PRINCIPALS LEADING TO THE DEGREE OF MASTER OF ARTS[1]

Required for Master's Degree ..... 14 Hours

1. High-School Administration
   - **Ed. 339. Public-School Organization and Administration ..... 2 Hrs.
   - **Ed. 353. The Secondary-School Principal ..... 2 Hrs.
2. Supervision of High-School Instruction
   - **Ed. 246. Principles of Supervision ..... 2 Hrs.
   - **Ed. 327. Demonstration and Practice in the Supervision of Secondary-School Instruction ..... 2 Hrs.
3. Other Required Courses for Master's Degree:
   - *Ed. 336. The High-School Curriculum.
   - *Ed. 372. Statistical Methods
   - *Ed. 360. Problem in Education or Thesis

Electives for Master's Degree (from other graduate courses in Education or from other fields by permission of adviser) ..... 16 Hours

Suggested Electives in Education for Master's Degree:
- *Ed. 231. Philosophy of Education or
- *Ed. 233. Educational Sociology

[1]Completion of this curriculum also fulfills the scholastic requirements for certification in West Virginia as a high-school principal. Other requirements for the high-school principal's certificate are (1) graduation from a standard college or university and qualifications for a first-class high-school teaching certificate; (2) three years of secondary-school teaching experience; and (3) a health certificate. Since most of the courses listed above have prerequisites, the consent of the instructor must be obtained before enrollment.

**Required for recommendation for High-School Principal's Certificate.

*Approved electives to complete the 14 semester hours required for recommendation for the High-School Principal's Certificate.

*Ed. 281. History of Elementary and Secondary Education in the United States
*Ed. 284. Pupil-Personnel Administration
*Ed. 357. Organization of Programs in Vocational Education
*Ed. 399. Techniques of Educational Research

Total for Master's Degree ..... 30 Hours

## THE CURRICULUM FOR ELEMENTARY-SCHOOL PRINCIPALS LEADING TO THE DEGREE OF MASTER OF ARTS[1]

Required for Master's Degree ..... 14 Hours

1. Elementary-School Administration
   - **Ed. 339. Public-School Organization and Administration ..... 2 Hrs.
   - **Ed. 356. The Elementary-School Principal ..... 2 Hrs.
2. Supervision of Elementary-School Instruction
   - **Ed. 246. Principles of Supervision ..... 2 Hrs.
   - **Ed. 326. Practice in the Supervision of Elementary-School Instruction ..... 2 Hrs.
3. Other Required Courses for Master's Degree:
   - **Ed. 316. Psychology of Elementary-School Subjects. (Ed. 308 and 309 may be substituted.) ..... 2 Hrs.
   - *Ed. 335. The Elementary-School Curriculum ..... 2 Hrs.
   - *Ed. 360. Problem in Education or Thesis (dealing with a phase of elementary education.) ..... 2 Hrs.

Electives for Master's Degree (approximately half in academic fields) to be chosen with approval of adviser ..... 16 Hours

Suggested Electives in Education:

- *Ed. 221. Audio-Visual Instruction ..... 2 Hrs.
- *Ed. 291. Exploratory Reading ..... 2 Hrs.
- *Ed. 372. Statistical Methods in Education ..... 2 Hrs.
- *Ed. 399. Techniques of Educational Research ..... 2 Hrs.

Total for Master's Degree ..... 30 Hours

## THE CURRICULUM FOR SECONDARY-SCHOOL CLASSROOM TEACHERS LEADING TO THE DEGREE OF MASTER OF ARTS

Required:

**Graduate courses in Education** ..... 10-20 Hours

**Suggested courses** ..... 12 Hours

Ed. 203. Adult Education
Ed. 222. Current Practices
Ed. 231. Philosophy of Education
Ed. 291. Exploratory Reading
Ed. 336. The Curriculum
Ed. 360. A Problem in Education or Thesis

[1]Completion of this curriculum also fulfills the Education requirements for the elementary-school principal's certificate. Other requirements are (1) three years of elementary-school teaching experience; and (2) a health certificate. Since most of the courses listed above have prerequisites, the consent of the instructor must be obtained before enrollment.

**Required for recommendation for Elementary Principal's Certificate.

*Approved Electives to complete the 14 semester hours required for recommendation for the Elementary Principal's Certificate.

**Graduate courses in a recognized teaching field**
Required ..... 10-20 Hours

**Graduate courses in tributary or supplemental fields**
Required ..... 0-10 Hours
Total, 30 Hours

All courses are to be selected by the candidate subject to the approval of his adviser so as to fulfill the above requirements.

### THE CURRICULUM FOR ELEMENTARY-SCHOOL CLASSROOM TEACHERS LEADING TO THE DEGREE OF MASTER OF ARTS

Required:

Ed. 316. Psychology of Elementary-School Subjects
(Other approved courses in this field, e.g., Ed. 308 and/or Ed. 309, may be substituted for Ed. 316)

Ed. 335. The Elementary-School Curriculum

Ed. 360. Problem in Education or Thesis

Electives in academic fields (to be chosen with adviser's approval)—12 hours required

Free electives (in Education or academic fields) to complete a total of 30 hours (to be chosen with adviser's approval)

Total, 30 Hours

### THE CURRICULUM LEADING TO THE DEGREE OF MASTER OF SCIENCE IN HOME-ECONOMICS EDUCATION

Required:

**Graduate courses in Education** ..... 10-20 Hours
**Graduate courses in home economics** ..... 20-20 Hours
**Graduate courses in tributary fields** ..... 0-10 Hours
Total, 30 Hours

All courses selected by the candidate are to be approved by the adviser so as to fulfill the above requirements.

# The College of Engineering and Mechanic Arts

## The School of Mines

### ORGANIZATION

For the purpose of administration and instruction, the College of Engineering and Mechanic Arts is organized into the following departments:

The department of aeronautical engineering (A. E.)
The department of chemical engineering (Ch. E.)
The department of civil engineering (C. E.)
The department of electrical engineering (E. E.)
The department of mechanical engineering (M. E.)
The department of mechanics (M.)

All the mining and industrial extension work of the University is organized under the School of Mines. For the purpose of administration the school is divided into the following divisions:

The department of mining engineering (E. M.)
The department of mining and industrial extension.

## The College of Engineering

The purpose of the College of Engineering and Mechanic Arts is to instruct students in the fundamental sciences and arts upon which all engineering rests, and to impart such special and technical knowledge of the various branches of engineering as will enable its graduates to enter them and maintain themselves while gaining their professional experience. To accomplish this purpose the work of the college is classified under the following curricula: aeronautical engineering, chemical engineering, civil engineering, electrical enginering, and mechanical engineering.

For those students desiring a broader training than is offered in the four-year curricula, a five-year course may be taken leading to two degrees. The latter course will also benefit those who desire to take their work more leisurely, since fewer semester hours are required in any given year.

The work of the first year is common in aeronautical, chemical, civil, electrical, and mechanical engineering. This is also true for mining engineering, which is taught in the School of Mines. Because of this common course, the student may postpone his choice of engineering branch until the end of the first year. By that time he becomes sufficiently acquainted with the various fields to make a wiser selection than would be possible on first entering college. In the second year differentiation starts, increasing year by year.

The course in aeronautical engineering is intended to give the student fundamental training in engineering together with special training and instruction in aeronautical and related subjects. By a judicious selection of electives in the senior year, the student may prepare himself for the field of aeronautical design and research or he may prepare himself for the operational field of aeronautics. Flight training is required in the summer following the second year. This together with special instruction already received makes it possible for the student to pass the C. A. A. examination for a private pilot's certificate.

The object of the chemical engineering curriculum is to qualify students to design, build, and manage manufacturing plants, in which the products of manufacture are based on chemical processes, and to fit them for professional employment as industrial chemists and chemical engineers. In addition to many courses which are required of all students, two options are offered in the upper-class work—one in metallurgy and the other in the field of ceramics.

The course in civil engineering is planned to give the student a substantial foundation in the fields of highway, railway, sanitary, municipal, structural, and hydraulic engineering. The field of civil engineering is one of the broadest of engineering professions, and yet the work of the civil engineer rests upon a relatively compact body of scientific principles. In the third and fourth years the student has a choice between a general civil engineering option and a sanitary engineering option. If he takes the civil engineering option he may choose between work in hydraulic engineering and in highway engineering.

The course in electrical engineering has for its purpose a general training in engineering fundamentals together with special training in either the field

of electrical power development and utilization, or in the field of electrical communication and the application of electronic devices to industrial and other uses. Since it is impossible adequately to cover both fields in one course, the student is offered a choice of two options. One is a power option and the other is a communication option. The content of the two options diverges in the third and fourth years, where the work is of a more technical and professional character. In the fourth year of either option the student has a choice of six hours of electives, and by a proper choice of these, the student may either broaden his training or he may specialize further in his chosen field.

Mechanical engineering deals essentially with the design and construction of machinery, the development and utilization of power, and the production in industry. To this end the student takes a considerable amount of shop work in addition to the theoretical courses in the fundamental sciences of mathematics, chemistry, and physics. In the upper-class work attention is given to machine design, power-plant design, refrigeration, heating and ventilation, as well as to production methods and industrial management. In the senior year, electives in aeronautical engineering more than meet the civil-service requirements in that field.

## THE SCHOOL OF MINES

The School of Mines, established at the University in 1926, was given a degree-granting status in July, 1930. For administrative purposes the School of Mines is divided into two departments: (1) the department of mining engineering, and (2) the department of mining and industrial extension. The department offices, laboratories, classrooms, museum, and model rooms are located in the Mineral Industries Building.

### Resident Instruction

The School of Mines offers (1) a four-year course leading to the degree of Bachelor of Science in Engineering of Mines, with options in coal mining and oil and gas engineering; and (2) a combined science and engineering course, extending over five years, leading to the degree of Bachelor of Science (at the end of the fourth year) and Bachelor of Science in Engineering of Mines (at the end of the fifth year). The work in mining engineering is based on fundamental instruction in the development, production, distribution, and utilization of coal, petroleum, and natural gas.

## THE ENGINEERING EXPERIMENT STATION

The chief functions of the Engineering Experiment Station are the encouragement and prosecution of research and investigations that will enhance the industrial and economic welfare of the people of West Virginia; original contributions to the fundamental principles and knowledge along scientific and engineering lines, and the stimulation and training of graduate students in research activities. The research undertaken by the Station therefore is primarily concerned with investigations in the production, processing, and utilization of the natural resources of West Virginia; investigations

that will aid the existing industries of the state and promote the development of new industries; and investigations that will aid in the planning, design, and development of the public works of the state. As a consequence of this program, the subjects receiving particular attention by the staff of the Station are coal, oil, gas, clays, stone, sand, timber, water, steam and electric power, sewerage, sanitation, road building, transportation, aeronautics, and communications.

The Station will assist in compiling surveys and in conducting investigations of the industrial requirements and possibilities of any region or community in the state. It cooperates with the West Virginia Agricultural Experiment Station, the State Road Commission, the State Geological Survey, the State Department of Health, the national engineering societies, and state or national agencies whose assistance may promote the more effective fulfillment of the Station's functions.

To aid industrial organizations in this state that lack facilities and personnel to undertake important research investigations which arise in the development of their operations, the Station stands ready, where time and facilities permit, to assist in the prosecution of investigations on their fundamental problems. Such advisory services are free, but any special equipment, materials, or labor that may be needed must be supplied by the organization for which the work is done. Several companies and technological associations have sponsored research fellowships in the Station.

The staff of the Station includes part-time services of several of the teaching members of the faculties of the College of Engineering and of the School of Mines, as well as a few full-time research engineers and chemists and part-time graduate student research assistants.

The results of the studies, surveys, investigations, and researches of the Experiment Station are published in bulletin form. Two series of bulletins are issued; to date there are 20 numbers in the Research Series and 23 in the Technical Series. The Technical Bulletins contain selected papers from the Proceedings of the Annual State Water Purification Conferences, the State Coal Conferences and the Appalachian Gas Measurement Short Courses. A list of publications and copies of the bulletins may be obtained upon application to the Director of the Engineering Experiment Station.

## MINING AND INDUSTRIAL EXTENSION

The department of mining and industrial extension in the School of Mines conducts courses of instruction in practical subjects in various sections of the State where groups of individuals wish to study and receive training in subjects pertaining to their every-day work. The department also aims to disseminate useful knowledge which has been amassed by research studies at the University to all classes of citizens in the State, and in this way to bring the University and its opportunities for learning to various groups of students who desire to enroll in its extension department.

*The Short Course in Coal Mining:*

The Short Course in Coal Mining offered by the department of mining and industrial extension gives an opportunity to operators, officials, and

employees of mining companies to obtain instruction pertaining to their work. The subjects covered in the short course are: explosives, methods of mining, timbering, mine gases, mine ventilation, hoisting, haulage, mine drainage, safety lamps, mine management, electricity in mines, mine fires and explosions, safety organization and administration, mining arithmetic, and elementary drawing.

Special attention is given to students desirous of preparing themselves for the teaching of mining classes under the Smith-Hughes and George-Dean Acts.

At the close of the short course the West Virginia Department of Mines conducts an examination for mine foremen and fire bosses. Tuition is free.

The thirty-first annual session of the Short Course in Coal Mining will begin on Monday, June 11, and continue until Saturday, July 21, 1945. For further information, write for the special announcement of the Short Course in Coal Mining.

*The Short Course in Welding:*

In cooperation with the Vocational Division of the State Department of Education and with the Mechanical Engineering department of the University, short courses in electric and oxygen-acetylene welding are conducted for eight-week periods. Groups of ten men are enrolled for an eight weeks' course which meets daily from 8:00 a. m. to 5:00 p. m. These courses are given at Morgantown under a resident instructor.

*The Short Course in Gas Measurement:*

The first Appalachian Gas Measurement Short Course was conducted in 1938 by the University in cooperation with the Public Service Commission of West Virginia, the West Virginia Oil and Natural Gas Association, the American Gas Association, and public utilities and industries producing, selling, or consuming natural gas in large quantities in West Virginia and surrounding states. This course provides instruction in the theory and practice of gas measurement and pressure regulation and is designed to be of interest to executives and officials of gas companies as well as to metermen. The course covers a period of three days and is usually held during the third week of August each year.

*Vocational Courses Offered in Extension:*

Courses in foreman training and other special courses for those in industry are offered in centers where there is sufficient interest. The services of the Department are available for any city or town desiring to establish night schools and part-time schools.

Extension courses in mining are offered under the direction of the University at various mining towns throughout the State. The instruction in these courses is carried on by University extension instructors who visit each center every week. At the present time the work is planned on a four-year basis to cover the following courses: mine gases, safety lamps, ventilation, timbering, explosives, haulage, prevention of mine accidents, mine waste,

drainage and pumping, mining methods, foremanship, electricity, mine fires, and explosions, and coal geology. In each of these unit courses, particular emphasis is placed on safety features, state mining laws, and application of arithmetic to mining problems.

An intensive course for the training of mine foremen in cooperation with the Federal Board of Vocational Education is also offered in certain sections of the State.

*Fire Service Extension School:*

An annual training school for firemen is conducted each year in cooperation with the State Fire Marshal, the National Board of Fire Underwriters, and the West Virginia Inspection Bureau. This school is conducted under the supervision of G. R. Spindler, Director of Fire Service Extension Schools. Extension courses in fire-department evolutions, fire protection, and fire prevention are offered under the direction of the University in cooperation with the State Fire Marshal at various fire departments in West Virginia. The instruction in these courses is carried on by local University extension instructors in the various departments. The classes meet once each week for approximately 30 weeks and cover the following subjects: motor equipment, pumps, hose, ropes, ladders, rescue, attack and extinguishment, salvage, ventilation, gases, inspection, overhauling, and minor equipment. Approximately one-fifth of the time is spent on actual fire-department evolutions.

*Oil and Gas Extension Classes:*

Extension classes for employees of the oil and gas industries are offered at various centers throughout the state by the Mining and Industrial Extension Department of the School of Mines. The classes are organized in September of each year and meet once each week for a period of approximately nine months. The instruction is divided into three years' work as follows: First Year — mathematics, physics and applied mechanics; Second Year — fluid mechanics, oil and gas transmission, gas measurement, pressure regulation and control: Third Year—combustion and utilization of gas, oil and gas geology, and principles of industrial management.

*Trade Extension Classes in Ceramics:*

Classes are being conducted by local instructors at Newell, West Virginia, in the various phases of the ceramic industry, including ceramics art, chemistry, and physics as applied to ceramics. These classes are attended by persons employed in the industry in that vicinity as well as others having an interest in the subject. These classes are held under the supervision of W. A. Koehler.

*The Coal Conference on Combustion:*

Since 1937, the School of Mines has sponsored each year an annual Coal Conference at Morgantown. These conferences have been devoted to the study of the problems incident to the marketing and utilization of coal and to the promotion of research investigations that may assist in the retention and expansion of coal markets. The annual Coal Conference will again be held at Morgantown in 1945; dates will be announced later.

*Water Purification Conferences:*

An annual conference on water purification is held each year in cooperation with the State Department of Health. A number of out-of-state engineers are invited to present papers at the conference. The State Department of Health and College of Engineering cooperate in the program. These conferences are held under the supervision of H. W. Speiden.

*Mine Electrician's Conference:*

Conferences for men engaged in the application of electrical energy to the mining industry will be arranged for at certain times, in connection with the department of electrical engineering, when such work does not conflict with the regular University classes. Such groups should consist of not less than ten or more than fifteen men who should have at least a working knowledge of arithmetic and elementary electrical laws. Conferences may be arranged for by writing to Mr. G. R. Spindler, Assistant Director of Mining Extension, and are expected to be from three- to five-day periods of class study and laboratory work in the department of electrical engineering.

*Road School:*

A road school is offered in cooperation with the State Road Commission of West Virginia. This course is open to engineers interested in highway construction. The subjects of road construction and road maintenance are treated in a practical manner, most of the teaching work being done by engineers in the employ of the commission. This school is conducted under the supervision of Professor W. S. Downs.

## THE STANDING COMMITTEES

ENGINEERING SCHEDULES: Associate Professors E. C. Jones, H. M. Cather, and Simons, and Assistant Professors Baker and Holland (School of Mines).

ENGINEERING SOCIETY: Professors Forman, Boomsliter, Koehler, Associate Professor H. M. Cather, and Assistant Professor Baker.

LIBRARY: Professor Speiden, Associate Professor Seibert, and Instructor Reynolds.

SCHOLARSHIP: Professors Hall and Koehler and Associate Professor C. H. Cather.

## BACCALAUREATE DEGREES

To receive any of the baccalaureate degrees conferred in the College of Engineering or the School of Mines, the student must have satisfied all the entrance requirements and, except in the case of the five-year curricula, must have received credit for 154 hours.[1] Included in this 154 hours is our Summer Session of five weeks, which for civil engineering students is taken at the summer surveying camp located near Terra Alta. For the chemical, electrical, and mechanical students the work is given in Mechanical Hall.

[1]Students matriculating with 58 or more hours of credit may graduate with 152 hours, since physical education is not required of such students.

### SUBSTITUTIONS

The following substitutions are regularly allowed in addition to special substitutions listed elsewhere:

Band **for** Military 3 and/or 4.
Chemistry 1, 2, and 9 **for** Chemistry 3 and 4.
Chemistry 5, 6, 106, 15 or 115 (2 to 5 hrs.) **for** Chemistry 10.
Chemistry 5, 10, or 105 **for** Chemistry 105s.
Chemistry 10, 15, or 107 **for** 2 hrs. of Chemistry 5 or 6.
Chemistry 115 **for** Chemistry 15.
Chemistry 6 or 106 (5 hrs.) **for** Chemistry 15 and 107.
Economics 1 and 2 or 1s and 2s **for** Economics 103.
E.S. 211 **for** E.E. 2.
English 11s and 12s **for** either English 1 or 2.
Math. 10 **for** Math. 4.
C.E. 201 **for** C.E. 115 Lab.
Mathematics 51s and 52s **for** Mathematics 5.
M.E. 24 **for** C.E. 10.
M.E. 29 **for** M.E. 27.
Any six hours **for** Military 1, 2, 3, and 4 students who enter with 58 or more hours of college credit and for students exempted from military training.
Physics 1, 2, 3, 4, 109 and 110 **for** Physics 105, 106, 107, and 108.
Public Speaking 11 **for** Public Speaking 13.

### THESIS

Any candidate for a baccalaureate degree in engineering may with the consent of his major professor prepare a thesis on some subject relating to a special branch of engineering or other department of applied science. It will be presented for approval first to the instructor under whose guidance it has been prepared, then to the head of the department in which the degree is to be conferred. A typewritten copy of the thesis prepared in accordance with official specifications and signed by both the instructor in charge and the head of the department, must be placed in the University library before graduation.

## THE COLLEGE OF ENGINEERING CURRICULA

1. A four-year curriculum leading to the degree of Bachelor of Science in Aeronautical Engineering.

2. A four-year curriculum leading to the degree of Bachelor of Science in Chemical Engineering, with options in metallurgy and ceramics.

3. A four-year curriculum leading to the degree of Bachelor of Science in Civil Engineering, with option in sanitary engineering.

4. A four-year curriculum leading to the degree of Bachelor of Science in Electrical Engineering.

5. A four-year curriculum leading to the degree of Bachelor of Science in Mechanical Engineering.

6. Combined science and engineering curricula extending over five or more years leading to the degree of Bachelor of Science, and Bachelor of Science in Engineering.

## The Freshman Schedule

In order to permit all students in the College of Engineering and the School of Mines to have a year in which to find out definitely what courses they wish to pursue, the first year of all engineering curricula is made uniform. To assist the student in making an intelligent choice, a series of weekly lectures is given throughout the first semester explaining the work of the several branches of engineering.

### First Year

(Identical for all engineering and mining courses)

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Eng. 1—Comp. and Rhet. | 3 | Eng. 2—Comp. and Rhet. | 3 |
| Math. 3—College Algebra | 4 | Math. 5—Analytical Geom. | 4 |
| Math. 4—Plane Trig. | 2 | Chem. 4—Inorganic Chem. | 4 |
| Chem. 3—Inorganic Chem. | 4 | Mil. 2—Military Science | 1 |
| Mil. 1—Military Science | 2 | P. E. 2—Ser. Prog. (Men) | 2 |
| P. E. 1—Ser. Prog. (Men) | 1 | C. E. 1—Surveying | 2 |
| M. E. 20—Mechanical Drawing | 3 | M. E. 26—Descriptive Geom. | 3 |
| G. 1—Engineering Lectures | | | |
| | 19 | | 19 |

## AERONAUTICAL ENGINEERING

*(For general courses in Aviation see page 217*)*

The course in aeronautical engineering is intended to give the student fundamental training in engineering together with special training and information in aeronautical and related subjects to prepare him for either the design or operational fields of aeronautics. The fact that the University has its own planes and a hangar at the Morgantown Municipal Airport is an advantage in that it makes possible adequate instruction in the maintenance and repair of aircraft equipment and affords an opportunity for the detailed study of aircraft and its component parts.

The first year of the curriculum consists of work which is common to all the engineering courses and it provides the requisite foundation in English, chemistry, drafting, and surveying and includes a year of mathematics. In the summer following the first year three shop courses are scheduled. These are (1) machine shop (2) welding and heat treatment and (3) aircraft maintenance and repair.

Mathematics is continued through the second year with courses in differential and integral calculus. Other subjects taken in this year are engineering physics, mechanism, engineering statics, aircraft repair, economics, public speaking, and elementary aviation ground school. In the summer following the second year the student takes flight instruction. A minimum of 35 hours (dual and solo) is required. This flight training and the instruction received in the preceding ground-school course prepare the student to take the C. A. A. examination for the private pilot's certificate.

The studies pursued during the third year are those of fundamental importance to the aeronautical engineer and in many cases are prerequisites

*Certain general courses in aviation are offered for University students who wish to learn to fly planes but do not care for credit in aeronautical engineering.

for the courses which follow in the fourth year. The subjects included in the third year are thermodynamics, mechanics of materials, kinetics, fluid mechanics, elements of electrical engineering, global geography, and the following aeronautical subjects: airports, aircraft structures, aircraft engines, and air navigation.

In the fourth year the courses are on the whole of a more technical character and confined mostly to aeronautical subjects such as elementary and advanced aerodynamics, aircraft propulsion, aircraft design, aircraft instruments, electrical systems for aircraft, aircraft structural materials, aircraft radio, and advanced meteorology. In this year the student is allowed seven credit hours of electives which permit him either to broaden his training or to continue further specialization along his chosen field.

The curriculum as set up provides adequate instruction for satisfactorily passing the C. A. A. examination in the ground-school subjects for a commercial pilot's certificate. This makes it possible for a student who desires the commercial pilot's certificate to obtain it after completing the necessary flight training.

The course in business law in the senior year and the Engineering Society of the third and fourth years are of a general character but should be of special value to the student expecting to go into the operational or administrative field of aeronautics.

The courses in physical education for the first year and the military scheduled for the first two years are a general University requirement and must be taken by all male students except those exempted by proper authority.

## CURRICULUM IN AERONAUTICAL ENGINEERING

*Leading to the Degree of Bachelor of Science in Aeronautical Engineering*

FIRST YEAR: See Curriculum on page 199.

### Summer Session Following First Year

| | Hrs. |
|---|---|
| M. E. 9s—Welding and Heat Treatment of Alloys | 1 |
| M. E. 11—Machine Shop | 2 |
| M. E. 14s—Aircraft Woodworking | 2 |
| | 5 |

### Second Year

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Phys. 105—G. Physics | 4 | Phys. 106—G. Physics | 4 |
| Phys. 107—G. Physics Lab. | 1 | Phys. 108—G. Physics Lab. | 1 |
| Math 107—Calculus | 4 | Math. 108—Calculus | 4 |
| Mil. 3—Science and Tactics | 2 | Mil. 4—Science and Tactics | 2 |
| A. E. 15—Aircraft Repair and Maint. | 2 | M. 101—Statics | 3 |
| Econ. 30—Fund. of Econ. | 3 | M. E. 27—Mechanism | 2 |
| Pub. Spk. 13—Effective Speaking | 2 | G. 120—Aviation Ground School | 3 |
| | 18 | | 19 |

**Summer Session Following Second Year**

A. E. 101s—Flight Training (35 hours minimum) ..... 2

**Third Year**

| | | | |
|---|---|---|---|
| M. 102—Mech. of Matls. | 4 | M. 104—Kinetics | 3 |
| M. E. 122—Mechanical Lab. | 2 | E. E. 103—Elements of E. E. | 4 |
| M. E. 221—Thermodynamics | 3 | C. E. 115—Fluid Mechanics | 2 |
| E. E. 102—Elements of E. E. | 4 | A. E. 211—Aircraft Structures | 4 |
| Geol. 107—Global Geography | 3 | A. E. 221—Aircraft Engines | 3 |
| C. E. 104—Airports | 2 | A. E. 241—Air Navigation | 2 |
| G. 101—Engineering Society | ½ | G. 102—Engineering Society | ½ |
| | 18½ | | 18½ |

**Fourth Year**

| | | | |
|---|---|---|---|
| A. E. 201—Elem. Aerodynamics | 3 | G. 110—Business Law | 3 |
| A. E. 222—Aircraft Propulsion | 3 | A. E. 231—Aircraft Instruments | 2 |
| A. E. 212—Aircraft Design | 3 | A. E. 202—Aerodynamics | 3 |
| E. E. 257—Aircraft Elect. Sys. | 3 | Geol. 212—Adv. Meteorology | 2 |
| Ch. E. 227—Aircraft Struct. Matls. | 2 | E. E. 258—Aircraft Radio | 3 |
| Electives | 3 | Electives | 4 |
| G. 103—Engineering Society | ½ | G. 104—Engineering Society | ½ |
| | 17½ | | 17½ |

**Electives**

| | | | |
|---|---|---|---|
| A. E. 124—Thesis | 2 to 5 | Math. 253—Adv. Math. for Engrs. | 3 |
| A. E. 223—Aircraft Engine Design | 3 | Ch. E. 211—Fuels | 2 or 3 |
| C. E. 211—Photographic Mapping | 2 | Ch. E. 223—Metallography | 2 |
| Econ. 246—Air Transport Admin. | 2 | E. E. 274—Ind. Appl. of Elect. | 3 |
| M. 103—Matls. Testing Lab. | 1 | E. M. 117—Ind. Safety Eng'g | 3 |
| C. E. 201—Hydraulic Measurements | 1 | M. E. 205—Industrial Eng'g | 3 |
| | | Physiol. 215—Aviation Physiology | 1 |

## CHEMICAL ENGINEERING

The standard four-year course in chemical engineering has been developed to qualify young men for positions in operation, design, construction, and management of manufacturing plants in which the raw materials are subjected to chemical changes and processes to produce the finished products. This curriculum (page 199) includes fundamental courses: in mathematics—through calculus; in chemisty—inorganic, analytical, organic, and physical; in physics; in basic engineering—surveying, mechanical drawing, mechanism, mechanics, strength of materials, and fluid flow; in heat and power engineering; in electrical engineering; in mineralogy and metallurgy; in chemical engineering—principles, calculations, thermodynamics, design, unit operations, unit organic processes, heat transfer, and economics; in electro-chemical industries, inorganic, and organic technology. This curriculum provides the student with a broad foundation in the fundamental principles of those subjects which wide experience has shown are essential for a successful career in the chemical engineering profession; or as engineers in any industry involving a succession of individual or unit operations.

To complete the requirements for the B. S. Ch. E. degree in four years, students should follow the curriculum as outlined, taking all required shop courses and qualitative analysis in the summer session; also, it is definitely advisable to take Physical Chemistry 260 and 261 in the Summer Session be-

fore their third year. Modifications in the standard chemical engineering curriculum for the ceramics and metallurgy options are outlined below.

Students preparing to take chemical engineering should present for entrance as many units as possible in mathematics, chemistry, and physics; also units in German, French, or Spanish. While certain basic courses in English, economics, and public speaking are required in the regular Ch. E. curriculum, a student will obtain a broader education in economics, history, language, science, applied technology, and engineering by taking the combined Bachelor of Science and Chemical Engineering course. By a careful selection of electives both degrees may be earned in five years.

Ceramics Option—Chemical engineering and ceramics have many basic concepts and engineering principles in common. Students selecting the ceramics option can obtain all required courses in chemical engineering and should take the following as their senior electives: Ch. E. 230 (3 hrs.), Ch. E. 232 (2 hrs.), and Ch. E. 233 (2 hrs.). Students showing marked ability in ceramics may select Ch. E. 124 (2 hrs.) in place of either of the latter two courses. Most students graduating with ceramic option complete more than the required number of hours, hence should preferably take also Ch. E. 211 (2 or 3 hrs.) and Ch. E. 231 (2 hrs.).

Metallurgy Option—The metallurgical industries apply many of the unit operations and fundamental principles studied in the chemical engineering curriculum. However, students selecting the metallurgy option may substitute Ch. E. 211 (2 or 3 hrs.) for Ch. E. 214 (2 hrs.), Ch. E. 222 (2 hrs.) for Ch. E. 215 (2 hrs.), and Ch. E. 223 (3 hrs.) for Ch. E. 219 (2 hrs.); also among their electives they should take Ch. E. 232 (2 hrs.), and Ch. E. 213 (2 hrs.). Students having special aptitude in metallurgy may take Ch. E. 124 (2-5 hrs.) as an elective. By taking these substitute and elective courses the student should be well prepared to begin his career in a metallurgical industry.

## CURRICULUM IN CHEMICAL ENGINEERING

*Leading to the Degree of Bachelor of Science in Chemical Engineering*

FIRST YEAR: See Curriculum on page 199.

**Summer Session Following First Year**

| | Hrs. |
|---|---|
| M. E. 6—Foundry* 1 hr. / M. E. 7—Welding and Heat Treat.* 1 hr. | or Chem. 105S—Qual Anal. 2 |
| M. E. 10—Pipefitting | 1 |
| M. E. 11—Machine Work | 2 |
| | 5 |

**Second Year**

| *First Semester* | Hrs. | *Second Semester* | Hrs. |
|---|---|---|---|
| Phys. 105—G. Physics | 4 | Phys. 106—G. Physics | 4 |
| Phys. 107—G. Physics Lab. | 1 | Phys. 108—G. Physics Lab. | 1 |
| Math. 107—Calculus | 4 | Math. 108—Calculus | 4 |
| Mil. 3—Military Science | 2 | Mil. 4—Military Science | 2 |
| Chem. 15—Quant. Analysis | 3 | Chem. 107—Quant. Analysis | 2 |
| Pub. Spk. 13—Effective Speaking | 2 | E. M. 106—Mineralogy | 1 |
| Econ. 30—Fund. of Economics | 3 | M. 101—Statics | 3 |
| | | M. E. 27—Mechanism | 2 |
| | 19 | | 19 |

*Recommended for students taking metallurgy option.

**Third Year**

| | | | |
|---|---|---|---|
| Chem. 233—Organic Chem. | 5 | Ch. E. 201—Unit Organic Processes | 3 |
| Chem. 260—Physical Chem. | 3 | Chem. 261—Physical Chem. | 3 |
| Ch. E. 205—Elements of Ch. E. | 3 | Ch. E. 105—Chem. Eng'g. Design | 2 |
| Ch. E. 206—Eng'g. Chem. Lab. | 1 | Ch. E. 208—Chem. Eng'g. Lab. | 2 |
| E. M. 202—Coal Lab. | 1 | M. E. 220—Heat and Pow. Eng'g. | 3 |
| M. 102—Mech. of Materials | 4 | M. 104—Kinetics | 3 |
| Ch. E. 109—Ch. E. Economics | 2 | C. E. 115—Fluid Mechanics | 2 |
| G. 101—Engineering Society | ½ | G. 102—Engineering Society | ½ |
| | 19½ | | 18½ |

**Fourth Year**

| | | | |
|---|---|---|---|
| Ch. E. 204—Chem. Eng'g. Calc. | 2 | Ch. E. 203—Ch. E. Thermodynamics | 2 |
| Ch. E. 207—Prin. Chem. Eng'g. | 2 | Ch. E. 210—Electrochem. Ind. | 3 |
| Ch. E. 209—Chem. Eng'g. Lab. | 2 | Ch. E. 215—Organic Chem. Techn. | 2 |
| Ch. E. 214—Inorganic Chem. Techn. | 2 | Ch. E. 216—Chem. Eng'g. Design | 2 |
| Ch. Ed. 220—Metallurgy | 2 | Ch. E. 219—Prin. Chem. Eng'g. | 2 |
| Ch. E. 221—Metallurgy Lab. | 1 | G. 104—Engineering Socity | ½ |
| E. E. 110—Elements of E. E. | 5 | Electives—(see below) | 6 |
| G. 103—Engineering Society | ½ | Inspection Trip | |
| Electives—(see below) | 1 | | |
| | 17½ | | 17½ |

**Electives**

| | | | |
|---|---|---|---|
| Ch. E. 124—Thesis | 2 to 5 | M. 103—Materials Test. Lab. | 1 |
| Ch. E. 202—Water Exam. and Purif. | 2 | Ch. E. 223—Metallography | 2 |
| Ch. E. 211—Fuels and Combust. | 2 to 3 | Ch. E. 232—Refractories | 2 |
| Ch. E. 217—Evapn. & Distiln. | 2 | C. E. 122—Structural Engineering | 2 or 3 |
| Ch. E. 218—Adv. Chem. Eng'g. Design | 2 | M. E. 205—Industrial Eng'g. | 3 |
| Ch. E. 222—Non-Ferrous Metallurgy | 2 | Geol. 1—G. Geology | 3 |
| | | German 1 and 2 | 6 |
| | | Mil. 105-108—Adv. Military | 1 to 6 |

## CIVIL ENGINEERING

Civil Engineering includes the measurement of land surfaces and the production of maps, the construction and operation of transportation facilities, the construction of fixed structures, sanitary and municipal engineering, and hydraulic engineering.

The measurement of land surfaces is done by some kind of surveying such as plane, topographic, or geodetic. The survey may be conducted entirely on the surface or it may combine the use of surface and aerial methods. Transportation facilities divide readily into highway, railway, water, and air groups, the work of the civil engineer being most directly concerned with the construction and maintenance of the fixed portions of the system in each case. Among the large number of fixed structures in the civil engineer's field are bridges, buildings, tunnels, subways, foundations, walls, and piers. Sanitary and municipal engineering cover the design, maintenance, and operation of water supplies, water purification plants, distribution systems, sewer systems, sewage-disposal plants, and garbage-disposal plants. Hydraulic engineering

deals with the design and construction of water-power installations, dry docks, locks and dams, flood control, and irrigation projects.

The civil engineering curriculum has been planned to give broad education in those general and scientific subjects which form the foundation of all engineering, and a special training in the field of civil engineering. During the first two years emphasis is placed on subjects such as English, mathematics, chemistry, physics, mechanical drawing, and surveying. These subjects are taught, not as an end in themselves, but rather as tools for the solution of engineering problems. The teaching is done by means of recitations, laboratory work, drawing room work, and field practice. During these first two years instruction is also given in military training and physical education, which help to keep the student physically fit. In the third and fourth years the application of these basic courses is made to the solution of engineering problems. Breadth of training is furnished by courses in mechanics, economics, bacteriology, geology, electricity, and heat and power engineering. Depth of training is furnished by professional work in highway, railway, structural, sanitary, and hydraulic engineering.

The civil engineering professional field is too wide to be covered thoroughly in a four-year course. For this reason, during the latter part of the course, certain options are offered. In addition to the sanitary engineering option outlined below, the student is offered a choice between two options in the fourth year, one of which devotes more time to transportation while the other stresses hydraulic engineering.

## SANITARY ENGINEERING OPTION

Students in civil engineering who desire to specialize in sanitary engineering are required to make the following regular substitutions:

Fourth year: first semester: C. E. 202, Water Purification, 3 hrs., for C. E. 103. C. E. 117, Municipal Engineering, is required instead of the 2 hours of optional subjects. Second semester: C. E. 203, Sewage Disposal, 3 hrs., for C. E. 204. Ch. E. 202, Water Examination, is required instead of 2 hours of optional subjects.

## CURRICULUM IN CIVIL ENGINEERING

*Leading to the Degree of Bachelor of Science in Civil Engineering*

FIRST YEAR: See Curriculum on page 199.

**Second Year**

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Physics 105—G. Physics | 4 | Physics 106—G. Physics | 4 |
| Physics 107—G. Physics Lab. | 1 | Physics 108—G. Physics Lab. | 1 |
| Math. 107—Calculus | 4 | Math. 108—Calculus | 4 |
| Chem. 10—Quant. Analysis | 2 | Mil. 4—Military Science | 2 |
| Mil. 3—Military Science | 2 | C. E. 3—Railroad Curves | 2 |
| Pub. Spk. 13—Effective Spk. | 2 | M. 101—Statics | 3 |
| C. E. 2—Surveying | 4 | Geol. 1—G. Geology | 3 |
| | 19 | | 19 |

C. E. 4S—Summer Surveying (five weeks) 5

**Third Year**

| | | | |
|---|---|---|---|
| Econ. 103—Econ. and Acct. | 3 | Bus. 110—Acct. for Engrs. | 2 |
| M. 102—Mech. of Materials | 4 | C. E. 101—El. of Hwy. Eng'g. | 3 |
| M. 103—Materials Test. Lab. | 1 | C. E. 115—Fluid Mechanics | 3 |
| C. E. 110—Struct. Drafting | 2 | C. E. 121—Structural Eng'g. | 4 |
| M. E. 220—Heat & Pow. Eng'g. | 3 | M. 104—Kinetics | 3 |
| | | Bact. 141—Bacteriology | 3 |
| E. E. 110—Elements of E. E. | 5 | Geol. 2—Geol. Lab. | 1 |
| G. 101—Engineering Society | ½ | G. 102—Engineering Society | ½ |
| | 18½ | | 19½ |

**Fourth Year**

| | | | |
|---|---|---|---|
| C. E. 116—Water Supply Eng'g. | 4 | C. E. 102—Railway Eng'g. | 3 |
| C. E. 120—Materials of Constr. | 2 | C. E. 118—Sewerage | 3 |
| C. E. 123—Bridge Design | 3 | C. E. 206—Reinforced Concrete | 3 |
| C. E. 207—Foundations | 3 | G. 110—Business Law | 3 |
| G. 103—Engineering Society | ½ | G. 104—Engineering Society | ½ |
| | | Inspection Trip | |
| C. E. 103—Highway Design | 3 | C. E. 204—Advanced Structs. | 3 |
| Electives—(see below) | 2 | Electives—(see below) | 2 |
| | 17½ | | 17½ |

**Electives**

| | | | |
|---|---|---|---|
| C. E. 200—Water Power Eng'g. | 2 | C. E. 209—Highway Lab. | 2 |
| Ch. 202—Water Ex. | 2 | C. E. 124—Thesis | 2 or 4 |
| C. E. 208—Trans. Econ. | 2 | C. E. 210—Photogrammetry | 2 |
| | | Mil. 105-108—Adv. Military | 1 to 6 |

NOTE: Students offering 6 hours of Advanced Military for Engineers toward their degree are not required to take Public Speaking 13

## ELECTRICAL ENGINEERING

### (Power Option)

The course in electrical engineering has been developed for the purpose of giving to the student who completes the course a general training in engineering fundamentals and special training in either the electrical power field or the communication field. As a result the curriculum in electrical engineering has two options. One is the power option, described below. The other is the communication option, described on a later page.

In the first two years of electrical engineering the work is confined mostly to those subjects which are essential as preparatory courses for the more technical courses which follow in the third and fourth years. This preparatory instruction supplies the requisite foundation in English, mathematics, physics, mechanics, chemistry, economics, drafting, and the elements of shop practice.

The studies pursued during the third year are those of fundamental importance to the electrical engineer. The subject matter includes additional mechanics, Engineering Society, courses in thermodynamics, heat engines, mechanical laboratory, and the following electrical subjects: direct-current machines, direct-current machines laboratory, electrical calculation and design, alternating-current theory, principles of aternating-current machines, electronics, and illumination.

In the fourth year the subject matter consists of additional Engineering Society, courses in kinetics, fluid mechanics, business law and the following electrical subjects: a year's study of alternating-current machines and a course in each of the following: electrical control, electrical communication, electrical engineering laboratory, advanced electrical laboratory, electrical power transmission, and engineering economics. In this year the student has a choice of six hours of electives to be selected from a group of subjects most of which are professional in character. By a proper selection of these electives the student may either broaden his training or else he may continue further specialization in the power field.

It will be observed that for many of the courses scheduled in this curriculum, the work of the classroom is supplemented by concurrent work in the laboratory or drafting room. By means of experimental work in the laboratory, followed with well-written reports and the problems in the design of electrical apparatus, the student acquires a clearer conception of the facts and principles discussed in the classroom and also a working knowledge of the subject matter. All of this is essential if he is to become a successful electrical engineer.

In the course in engineering economics, general economic considerations are applied to the problems of electric power generation, the transmission and use of electric power, and the selection of electrical and allied equipment for the economic utilization of electric power. Also the study and analysis of rate structures is taken up. This course and the course in business law are valuable inclusions in the power option for the student who is interested in taking up administrative work.

## CURRICULUM IN ELECTRICAL ENGINEERING

**(Power Option)**

*Leading to the Degree of Bachelor of Science in Electrical Engineering*

FIRST YEAR: See Curriculum on page 199.

**Summer Session Following First Year**

| | Hrs. | | Hrs. |
|---|---|---|---|
| M. E. 11—Machine Shop | 2 | M. E. 6—Foundry | 1 |
| M. E. 7—Welding & Heat Treatment | 1 | E. E. 2—Elem. Elect. Lab. | 1 |
| | | | 5 |

**Second Year**

| *First Semester* | Hrs. | *Second Semester* | Hrs. |
|---|---|---|---|
| Phys. 105—G. Physics | 4 | Phys. 106—G. Physics | 4 |
| Phys. 107—G. Physics Lab. | 1 | Phys. 108—G. Physics Lab. | 1 |
| Math. 107—Calculus | 4 | Math. 108—Calculus | 4 |
| Mil. 3—Military Science | 2 | Mil. 4—Military Science | 2 |
| Econ. 30—Fund. of Econ. | 3 | E. E. 100—Elem. of Elect. Eng'g. | 4 |
| Pub. Spk. 11—Effective Spk. | 3 | M. 101—Statics | 3 |
| M. E. 27—Mechanism | 2 | | |
| | 19 | | 18 |

### Third Year

| | | | |
|---|---|---|---|
| E. E. 104—Illumination | 2 | E. E. 237—Prin. of A. C. Mach. | 4 |
| E. E. 230—D. C. Machinery | 3 | E. E. 244—Elec. Calc. & Design | 3 |
| E. E. 231—D. C. Mach. Lab. | 2 | E. E. 250—Electronics | 4 |
| E. E. 235—A. C. Theory | 4 | M. 102—Strength of Materials | 4 |
| Mathematics 253 | 3 | M. E. 222—Heat Engines | 3 |
| M. E. 122—Mechanical Lab. | 2 | G. 102—Eng'g. Society | ½ |
| M. E. 221—Thermodynamics | 3 | | |
| G. 101—Eng'g. Society | ½ | | |
| | 19½ | | 18½ |

### Fourth Year

| | | | |
|---|---|---|---|
| E. E. 239—A. C. Machinery | 3 | E. E. 240—A. C. Machinery | 3 |
| E. E. 241—Elect. Eng. Lab. | 2 | E. E. 242—Adv. Elect. Lab. | 2 |
| E. E. 245—Electric Control | 2 | E. E. 247—Elect. Power Transmission | 3 |
| E. E. 260—Elect. Communication | 3 | E. E. 270—Eng'g. Economics | 3 |
| C. E. 115—Fluid Mechanics | 2 | G. 110—Business Law | 3 |
| M. 104—Kinetics | 3 | Electives | 3 |
| Electives | 3 | G. 104—Eng'g. Society | ½ |
| G. 103—Eng'g. Society | ½ | | |
| | 18½ | | 17½ |

### Electives

| | | | |
|---|---|---|---|
| E. E. 124—Thesis | 2 to 5 | E. E. 286—Industrial Control | 3 |
| E. E. 253-354—Radio Eng'g. | 6 | Advanced Math. | 3 |
| E. E. 274—Ind. Appl. of El. | 3 | Ch. E. 210—Electro. Chem. Ind. | 2 or 3 |
| E. E. 280-281—Elect. Probl. | 1 to 6 | M. E. 223—Steam Pow. Plants | 3 |
| E. E. 282—Symmetrical Comp. | 3 | M. E. 228—Eng'g. Lab. | 2 |
| E. E. 283—Telephone Eng'g. | 3 | Mil. 105-108—Adv. Military | 1 to 6 |

## ELECTRICAL ENGINEERING

### (Communication Option)

The course in electrical engineering has been developed for the purpose of giving to the student who completes the course a general training in engineering fundamentals and special training in either the electrical power field or the field of electrical communication. As a result the curriculum in electrical engineering has two options. One is a power option (described on a preceding page) and the other is a communication option (described on this page). In the first two years of electrical engineering the work is confined mostly to those subjects which are essential as preparatory courses for the more technical courses which follow in the third and fourth years. This preparatory instruction supplies the requisite foundation in English, mathematics, physics, mechanics, chemistry, economics, drafting, and the elements of shop practice.

The studies pursued during the third year are those of fundamental importance to the electrical engineer. The subject matter includes additional mechanics, Engineering Society, a course in heat and power engineering, and the following electrical courses: direct-current machines, direct-current machines laboratory, alternating-current theory, principles of alternating-current machines, and electronics, with the following subject matter of special importance in communication work: Two courses of advanced mathematics

intended to provide proficiency in mathematical analysis as an aid in the study of advanced courses in communication. A laboratory course in electrical measurements to develop the technique of precise measurements in communication work.

In the fourth year the subject matter consists of additional Engineering Society, courses in fluid mechanics, business law, illumination, engineering economics, and communication subjects consisting of two semesters of electrical communication, and two semesters of radio engineering with the accompanying laboratory. In this year the student has a choice of six hours of electives to be selected from a group of subjects most of which are professional in character. By a proper choice of these electives the student may either broaden his training, or else he may continue further specialization in the communication field.

It will be observed that for many of the courses scheduled in this curriculum, the work of the classroom is supplemented by concurrent work in the laboratory or drafting room. By means of experimental work in the laboratory followed with well-written reports and the problems in the design of electrical apparatus, the student acquires a clearer conception of the facts and principles discussed in the classroom and also a working knowledge of the subject matter. All of this is essential if the student is to become a successful electrical engineer.

In the course in engineering economics, general economic considerations are applied to electric power, its generation, transmission, and use together with the selection of electrical and allied equipment from an economic standpoint, also a study and analysis is made of rate structures. This course and the course in business law are valuable inclusions in the electrical engineering curriculum for the student who is interested in taking up administrative work.

## CURRICULUM IN ELECTRICAL ENGINEERING

### (Communication Option)

*Leading to the Degree of Bachelor of Science in Electrical Engineering*

FIRST YEAR: See Curriculum on page 199.

### Summer Session Following First Year

| | Hrs. | | Hrs |
|---|---|---|---|
| M. E. 11—Machine Shop | 2 | M. E. 6—Foundry | 1 |
| M. E. 7—Welding and Heat Treat. | 1 | E. E. 2—Elem. Elect. Lab. | 1 |
| | | | 5 |

### Second Year

| *First Semester* | Hrs. | *Second Semester* | Hrs. |
|---|---|---|---|
| Phys. 105—G. Physics | 4 | Phys. 106—G. Physics | 4 |
| Phys. 107—G. Physics Lab. | 1 | Phys. 108—G. Physics Lab. | 1 |
| Math. 107—Calculus | 4 | Math. 108—Calculus | 4 |
| Mil. 3—Military Science | 2 | Mil. 4—Military Science | 2 |
| Econ. 30—Fund. of Economics | 3 | E. E. 100—Elem. of Elect. Eng'g. | 4 |
| Pub. Spk. 11—Effective Spk. | 3 | M. 101—Statics | 3 |
| M. E. 27—Mechanism | 2 | | |
| | 19 | | 18 |

### Third Year

| | | | |
|---|---|---|---|
| E. E. 230—D. C. Machinery | 3 | E. E. 237—Prin. of A. C. Mach. | 4 |
| E. E. 231—D. C. Mach. Lab. | 2 | E. E. 244—Elect. Calc. & Design | 3 |
| E. E. 235—A. C. Theory | 4 | E. E. 250—Electronics | 4 |
| Mathematics 253 | 3 | E. E. 251—Elect. Measurements Lab. | 1 |
| M. 102—Strength of Materials | 4 | Mathematics 254 | 3 |
| M. E. 220—Heat & Power Eng'g. | 3 | M. 104—Kinetics | 3 |
| G. 101—Eng'g. Society | ½ | G. 102—Eng'g. Society | ½ |
| | 19½ | | 18½ |

### Fourth Year

| | | | |
|---|---|---|---|
| E. E. 104—Illumination | 2 | E. E. 254—Radio Eng'g. | 3 |
| E. E. 245—Electric Control | 2 | E. E. 256—Radio Lab. | 2 |
| E. E. 253—Radio Eng'g. | 3 | E. E. 261—Elect. Communication | 3 |
| E. E. 255—Radio Lab. | 3 | E. E. 270—Eng'g. Economics | 3 |
| E. E. 260—Elect. Communication | 3 | G. 110—Business Law | 3 |
| C. E. 115—Fluid Mechanics | 2 | Electives | 3 |
| Electives | 3 | G. 104—Eng'g. Society | ½ |
| G. 103—Eng'g. Society | ½ | | 17½ |
| | 18½ | | |

### Electives

| | | | |
|---|---|---|---|
| E. E. 124—Thesis | 2 to 5 | E. E. 282—Symmetrical Comp. | 3 |
| E. E. 247—Elect. Power Transmission | 3 | E. E. 283—Telephone Eng'g. | 3 |
| E. E. 274—Ind. Appl. of El. | 3 | E. E. 286—Industrial Control | 3 |
| E. E. 280, 281—Elect. Prob. | 1 to 6 | Adv. Math. or Physics | 3 to 6 |
| | | Mil. 105-108—Adv. Mil. | 1 to 6 |

## MECHANICAL ENGINEERING

The purpose of the course in mechanical engineering is to give the student such mental equipment as will enable him to deal most effectively both technically and commercially with general engineering problems. All possible practice is given in the work that an engineer is ordinarily called on to do, but greater stress is laid on a thorough knowledge of those underlying fundamental principles and methods which are the foundation of all engineering professions. To this is added a study of those economic subjects which are essential to a thorough understanding of sound business methods. Electives are provided in the fourth year which enable the student to specialize in accordance with his natural inclination. Students selecting electives in the power field or in the industrial field in the first semester are required to take at least 3 hours in the same group during the second semester. In the fourth year those students interested in the power field apply these principles of design to turbines and engines, while those interested in the industial field study the problems of organization and management of industries.

The work in pure mathematics is terminated at the end of the second year, and applications follow in the recitation room courses in mechanism, statics, mechanics of materials, dynamics, and machine design. Power engineering begins with the course in thermodynamics in the third year and is continued by the courses in heat engines, internal combustion engines, and power plant design, with electives in the design of steam turbines and in gas

engineering. A sufficient amount of electrical engineering is given in the third and fourth years to enable the student to handle engineering operations involving the simple electrical problems, and additional courses are available as electives.

Fundamental drafting-room procedure is taught in the first year and this is supplemented by shop work, beginning in the summer following the first year. This is planned to give a knowledge of the fundamental tools and of methods of production, which, when combined with the study of mechanism, machine design, and power-plant design in the second, third, and fourth years, will enable the student to work out designs that are both practical in operation and economical to manufacture.

The engineering laboratories provide the student with practice in testing, handling, and caring for a large variety of machinery, including steam, air, gas, hydraulic, material-testing, internal combustion, and power-transmission machinery. One-half day a week is devoted to this work during the last two years.

## CURRICULUM IN MECHANICAL ENGINEERING

*Leading to the Degree of Bachelor of Science in Mechanical Engineering*

FIRST YEAR: See Curriculum on page 199.

### Summer Session Following First Year

| | Hrs. |
|---|---|
| M. E. 6—Foundry | 1 |
| M. E. 7—Welding and Heat Treatment | 1 |
| M. E. 11—Machine Work | 2 |
| M. E. 12—Machine Work | 1 |
| | 5 |

### Second Year

| *First Semester* | Hrs. | *Second Semester* | Hrs. |
|---|---|---|---|
| Physics 105—G. Physics | 4 | Physics 106—G. Physics | 4 |
| Physics 107—G. Physics Lab. | 1 | Physics 108—G. Physics Lab. | 1 |
| Math. 107—Calculus | 4 | Math. 108—Calculus | 4 |
| Mil. 3—Military Science | 2 | Mil. 4—Military Science | 2 |
| Chem. 10—Quant. Analysis | 2 | M. 101—Statics | 3 |
| M. E. 29—Mechanism | 4 | M. E. 24—Empirical Design | 2 |
| M. E. 4—Pattern Making | 2 | Pub. Spk. 11—Eff. Spk. | 3 |
| | 19 | | 19 |

### Third Year

| | | | |
|---|---|---|---|
| Econ. 103—Econ. and Acct. | 3 | Bus. 110—Acct. for Engs. | 2 |
| M. 102—Mech. of Materials | 4 | M. 104—Kinetics | 3 |
| M. 103—Materials Test Lab. | 1 | E. E. 103—Elements of E. E. | 4 |
| E. E. 102—Elements of E. E. | 4 | M. E. 113—Machine Design | 4 |
| M. E. 122—Mechanical Lab. | 2 | M. E. 105—Machine Constr. | 2 |
| M. E. 221—Thermodynamics | 3 | M. E. 222—Heat Engines | 3 |
| G. 101—Engineering Society | ½ | G. 102—Engineering Society | ½ |
| | 17½ | | 18½ |

**Fourth Year**

| | | | |
|---|---|---|---|
| C. E. 115—Fluid Mechanics | 3 | G. 110—Business Law | 3 |
| C. E. 122—Structural Eng'g. or | | E. E. 274—Ind. App. of Elec. | 3 |
| Ch. E. 220—Metallurgy | 2 | M. E. 227—Pow. Plant Design | 2 |
| Ch. E. 221—Metallurgy Lab. | 1 | M. E. 228—Eng'g. Lab. | 2 |
| M. E. 123—Eng'g. Lab. | 2 | M. E. 229—Int. Comb. Engines | 2 |
| M. E. 203—Machine Design | 4 | G. 104—Engineering Society | ½ |
| M. E. 223—Steam Pow. Plants | 3 | Inspection Trip | |
| G. 103—Engineering Society | ½ | Electives—(see below) | 6 |
| Electives—(see below) | 3 | | |
| | 18½ | | 18½ |

**Electives**

| | | | |
|---|---|---|---|
| M. E. 106—Shop Methods | 2 or 3 | Mil. 105-108—Adv. Military for Engineers | 1 to 6 |
| M. E. 124—Thesis | 2 to 4 | E. E. 204—E. Desn. and Calc. | 3 |
| M. E. 205—Industrial Eng'g. | 3 | Ch. E. 211—Fuels and Combustion | 2 or 3 |
| M. E. 206—Industrial Eng'g. | 3 | | |
| M. E. 224—Steam Turbines | 3 | | |
| M. E. 225—Gas Eng'g. | 3 | | |

## FIVE-YEAR CURRICULA

For a description of curricula leading to the degree of Bachelor of Science and degrees in engineering, see page 198.

## THE SCHOOL OF MINES CURRICULA[1]

1. A four-year curriculum leading to the degree of Bachelor of Science in Engineering of Mines, with options in coal mining and in petroleum and natural gas engineering.

2. Combined science and engineering curricula extending over five or more years leading to the degrees of Bachelor of Science and Bachelor of Science in Mining Engineering in the School of Mines.

### MINING ENGINEERING

Mining engineering deals with the processes and appliances used in the extraction of minerals from within the earth and their utilization. Not only must the mining engineer be thoroughly trained in mining and geology, but also in the application of the fundamental principles of civil, electrical, and mechanical engineering to mining conditions.

The first two years of the course in mining engineering are devoted to a thorough training in the underlying principles of mathematics, geology, physics, and chemistry. Supplementing these are courses in surveying, including mine surveying, English, and drawing. For the last two years of the course two options are provided, one in coal mining and one in geological, oil, and gas engineering. The student is permitted to state his choice of option at the beginning of the third year. Summer employment is usually arranged for students desiring such work, and such summer work is encouraged.

[1]The freshman year of these curricula is common with the freshman year in the College of Engineering. This provision permits a student to postpone a choice of his course of study in any branch of engineering until a year of college work.

## COAL MINING

In the Coal Mining Option the study of coal mining is taken up in the third year. This study includes the geology and classification of coals; explosives and blasting; prospecting; shaft sinking and tunneling; methods of working; haulage, hoisting and pumping; and the preparation of coal for the market. A course in the projection of mine workings and the design of mining plants is offered throughout the fourth year. A course in the utilization of mining machinery, with particular reference to electrical equipment, is required in the senior year. A thorough course in mine gases and the ventilation of mines is given in the first half of the fourth year, supplemented by work in the mining laboratory. The course in fuels is designed to give the student a knowledge of the various fuels that are utilized in engineering practice, while the courses in metallurgy acquaint him with the minerals and processes used in manufacture of iron and steel. The course in mine management presents the economic, social, governmental, labor, and financial considerations to be met in the successful management of a mining enterprise.

The study of steam engineering begins with the course in heat and power engineering. Thorough groundwork in engineering principles is acquired in the five mechanical courses.

Practice in the handling and care of instruments and machinery and in the solution of practical engineering problems is offered in the mechanical laboratory. These courses are followed by courses in electrical engineering and structural engineering.

Training in the science of geology is offered by the course in mineralogy and general geology. These courses may be supplemented by the study of the economic geology of the non-metallic minerals in the fourth year, special attention being paid to the geology of coal, oil, and gas. Should the student desire further work in geology a course in field geology is offered as an elective subject.

The courses in economics and business law furnish the fundamental business training so essential for the engineer.

Local coal fields and mining operations are utilized extensively for instruction and field work.

## CURRICULUM IN MINING ENGINEERING

**(Coal-mining Option)**

*Leading to the Degree of Bachelor of Science in Engineering of Mines*

FIRST YEAR: See Curriculum on page 199.

**Second Year**

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Physics 105—G. Physics | 4 | Physics 106—G. Physics | 4 |
| Physics 107—G. Physics Lab. | 1 | Physics 108—G. Physics Lab. | 1 |
| Math. 107—Calculus | 4 | Math. 108—Calculus | 4 |
| Mil. 3—Military Science | 2 | Mil. 4—Military Science | 2 |
| E. M. 100—Mine Surveying | 2 | Chem. 6—Quant. Analysis | 3 |
| E. M. 106—Mineralogy | 2 | E. M. 101—Mine Surveying | 2 |
| Geol. 1—General Geology | 3 | M. 101—Statics | 3 |
| Geol. 2—General Geology Lab. | 1 | | |
| | 19 | | 19 |

E. M. 102S—Summer Mine Surveying (five weeks) ..... 5

**Third Year**

| | | | |
|---|---|---|---|
| E. E. 102—Elements of E. E. | 4 | E. E. 103—Elements of E. E. | 4 |
| C. E. 110—Structural Drafting | 2 | Pub. Spk.—Effective Spkg. | 2 |
| M. 102—Mech. of Materials | 4 | E. M. 202—Coal Lab. | 1 |
| M. 103—Materials Test. Lab. | 1 | E. M. 212—Coal Mining | 4 |
| E. M. 111—Mining | 2 | C. E. 115—Fluid Mechanics | 3 |
| E. M. 107—Mining Methods | 4 | M. E. 220—Heat & Pow. Eng'g. | 3 |
| Ch. E. 220—Metallurgy | 2 | | |
| G. 101—Engineering Society | ½ | G. 102—Engineering Society | ½ |
| | 19½ | | 17½ |

**Fourth Year**

| | | | |
|---|---|---|---|
| Econ. 103—Econ. and Acct. | 3 | G. 110—Business Law | 3 |
| C. E. 122—Structural Eng'g. | 3 | Bus. 110—Prin. of Acct. | 2 |
| E. M. 115—Mine Design | 2 | E. M. 114—Mine Management | 2 |
| E. M. 213—Mine Ventilation | 3 | E. M. 116—Mine Design | 3 |
| M. 104—Kinetics | 3 | E. M. 118—Coal Preparation | 3 |
| G. 103—Engineering Society | ½ | E. M. 119—Mine Equip. & Mach. | 2 |
| Electives—(see below) | 3 | G. 104—Engineering Society | ½ |
| | | Inspection Trip | |
| | | Electives—(see below) | 3 |
| | 17½ | | 18½ |

**(Electives in the Coal-mining Option)**

| | | | |
|---|---|---|---|
| E. M. 117—Indus. Safety Eng'g. | 3 | C. E. 206—Concrete Const. | 3 |
| E. M. 120—Thesis | 2 to 4 | M. E. 207—Industrial Eng'g. | 3 |
| E. M. 203—Geol. Survey | 3 | Geol. 111—Economic Geol. | 3 or 4 |
| Ch. E. 211—Fuels | 3 | Geol. 3—Historical Geol. | 3 |
| Ch. E. 222—Non. Fer. Met. | 2 | Geol. 4—Hist. Geol. Lab. | 1 |
| E. E. 274—Industrial Applications of Electricity | 3 | Geol. 108—Nat. Resources and Geology of West Va. | 2 or 3 |
| | | Mil. 105-108—Adv. Military | 1 to 6 |

## GEOLOGICAL, PETROLEUM AND NATURAL GAS ENGINEERING

This option is planned to meet the needs of the engineer who is more interested in the geological aspect of mining than in the actual operation of a mining property and particularly for the student interested in the fields of natural gas and petroleum engineering. There is a growing demand for the so-called mining geologist who, while he has had a thorough training in the fundamentals of engineering in general and of mining engineering in particular, yet is specially qualified to work out the detailed geological features of mining properties and to make reports on them. This is particularly true in the case of oil and gas companies, where accurate knowledge in advance of actual drilling operations is of the greatest importance in the economical development of the field. Besides the opportunities offered by mining companies, many of our railroads maintain a corps of geologists while the several states and the federal government are continually carrying on geological investigations. This course also offers an excellent preparation for those who propose to do graduate work.

Particular emphasis is placed on the development, production, distribution, and utilization of natural gas and petroleum. This is an engineering

field essential to modern industry offering many opportunities for the technically trained student. Local production fields, compressor stations, and refineries coupled with new equipment facilites offer many unique advantages in this field of engineering.

In the third year the course differs from the coal-mining option in that organic chemistry, petroleum, natural gas, and geological courses are substituted for the courses in coal mining. A course in field geology in which the student prepares a geological map and a complete report on an assigned area enables him to apply the geological knowledge received in various courses. The fundamentals of mining and metallurgy are studied in the third year as well. The study of oil and gas geology treats of the origin, properties, distribution, and mode of accumulation of oil and gas, and familiarizes the student with all the available sources of information on this subject. The courses in oil and gas production and oil refining deal with the subjects of the chemical and physical properties of petroleum and natural gas, their extraction and subsequent treatment, the valuation of oil and gas properties, reports on them, and the actual testing in the laboratory of various oils, oil shales, and natural gas. The problems of natural gas measurement and distribution are particularly stressed.

A thorough grounding in the fundamentals of business is afforded by the courses in economics, accounting, and business law.

## CURRICULUM IN MINING ENGINEERING

### (Petroleum and Natural Gas Option)

*Leading to the Degree of Bachelor of Science in Engineering and Mines*

FIRST YEAR: See Curriculum on page 199.

### Second Year

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Physics 105—G. Physics | 4 | Physics 106—G. Phyics | 4 |
| Physics 107—G. Physics Lab. | 1 | Physics 108—G. Physics Lab. | 1 |
| Math. 107—Calculus | 4 | Math. 108—Calculus | 4 |
| Mil. 3—Military Science | 2 | Mil. 4—Military Science | 2 |
| E. M. 100—Mine Surveying | 2 | Chem. 6—Quant. Analysis | 3 |
| E. M. 106—Mineralogy | 2 | E. M. 101—Mine Surveying | 2 |
| Geol. 1—General Geol. | 3 | M. 101—Statics | 3 |
| Geol. 2—Gen. Geol. Lab. | 1 | | |
| | 19 | | 19 |

E. M. 102S—Summer Mine Surveying (five weeks) 5

### Third Year

| | | | |
|---|---|---|---|
| Chem. 233—Organic Chem. | 5 | M. E. 220—Heat & Pow. Eng'g. | 3 |
| Geol. 3—Historical Geol. | 3 | M. 104—Kinetics | 3 |
| Geol. 4—Hist. Geol. Lab. | 1 | Pub. Spk. 13—Effective Speaking | 2 |
| M. 102—Mech. of Materials | 4 | Geol. 161—Field Geol. | 3 |
| M. 103—Materials Test. Lab. | 1 | Ch. E. 101—Oil Lab. | 1 |
| Ch. E. 220—Metallurgy | 2 | C. E. 115—Fluid Mechanics | 3 |
| E. M. 201—Oil Field Development | 2 | G. 110—Business Law | 3 |
| G. 101—Engineering Society | ½ | G. 102—Engineering Society | ½ |
| | 18½ | | 18½ |

**Fourth Year**

| | | | |
|---|---|---|---|
| Econ. 103—Econ. and Accounting | 3 | Bus. 110—Prin. of Accounting | 2 |
| Ch. E. 211—Fuels | 3 | Geol. 211—Econ. Geol. of Coal, Oil and Gas | 3 |
| Ch. E. 212—Oil Refining | 2 | E. M. 203—Geol. Surveying | 2 |
| Geol. 205—Structural Geol. | 3 | E. M. 204—Oil & Gas Prod. | 4 |
| E. E. 110—Elements of E. E. | 5 | E. M. 205—Gas Meas. Eng'g. | 2 |
| G. 103—Engineering Society | ½ | G. 104—Engineering Society | ½ |
| Electives—(see below) | 2 | Inspection Trip | |
| | | Electives—(see below) | 4 |
| | 18½ | | 17½ |

**Electives in the Petroleum and Natural Gas Option**

| | | | |
|---|---|---|---|
| E. M. 117—Indus. Safety Eng'g. | 3 | C. E. 206—Concrete Constr. | 3 |
| E. M. 212—Coal Mining | 4 | M. E. 207—Industrial Eng'g. | 3 |
| E. M. 120—Thesis | 2 to 4 | Geol. 111—Economic Geology (Non-metallic) | 3 |
| Geol. 108—Natural Resources & Geology of West Virginia | 2 or 3 | Chem. 238, 260 | 3 to 5 |
| Mil. 105-108—Adv. Military | 1 to 6 | M. E. 229—Int. Comb. Engines | 2 |

## FIVE-YEAR CURRICULA

*Leading to the Degree of Bachelor of Science and Degrees in Engineering and in Mining Engineer*

These curricula are designed to meet the needs of students who wish a broader training in liberal-arts subjects than is provided in a four-year curriculum. The work outlined for the first four years may also be taken by students who desire a general scientific course with engineering as a major as a preparation for the study of law, business, business administration, or some branch of science or for teaching mathematics and science.

(A) Requirements for the degree of Bachelor of Science, to be conferred at the end of the fourth year:

| *Subject* | *Hours* |
|---|---|
| The requirements in the first three years of any four-year engineering curriculum[1] | 117[2] to 119[2] |
| Additional economics (group requirements of 6 hours)[1] | 1 |
| One foreign language | 12 |
| Elective from one of the following groups: (1) English, journalism, public speaking; (2) foreign language; (3) history; (4) political science; (5) philosophy and sociology; (6) business administration. | 6 |
| Total | 136[2] to 138[2] |

(B) Requirements for the Bachelor of Science degree in Engineering or Engineering of Mines to be conferred upon completion of the fifth year:

| | |
|---|---|
| The work outlined for the fourth year in the department in which the first degree was taken | 37 to 35 |
| Total for five years | 173[2] |

[1]Candidates for the degree of Bachelor of Science in Chemical Engineering or Bachelor of Science in Electrical Engineering may postpone 3 hours of third-year work until the fifth year to make room for the economics required for the degree of Bachelor of Science.

In special cases students may, with the approval of the adviser and Committee on Scholarship, be permitted to substitute a limited amount of fourth-year work in the same curriculum for third-year subjects.

[2]These figures include the present University requirements for 8 hours in military science and 2 hours in physical education

### GRADUATE CURRICULA

Graduate work leading to the degree of Master of Science in Engineering is offered in all departments. In certain departments also courses leading to the degree of Doctor of Philosophy are offered. The student who plans to pursue graduate work is directed to the courses as outlined in the Graduate School section of the University catalogue.

## SPECIAL ENGINEERING CURRICULA

1. Elective Groups for Students in Other Colleges. Candidates for degrees other than engineering degrees and special students in any department of the University are permitted to elect subjects in the College of Engineering and the School of Mines, provided, in each case, they have had the subjects specified as prerequisites. Students who wish to take a general classical or scientific course of study before taking the engineering curriculum are advised to carry their mathematics as far as called for by the engineering curriculum, and to take some of their elective work in the College of Engineering.

For a list of engineering and mining courses accredited in the College of Arts and Sciences see the footnote on page 117.

2. Partial Curriculum. Students who have not the time or are otherwise unable to take full curriculum will be allowed to take a special or partial curriculum, consisting of such studies as they are prepared to take, provided such curriculum shall have been approved by the adviser. For further information see statement of requirements for admission as special students.

## COURSES IN THE COLLEGE OF ENGINEERING

NOTE—Courses marked by an asterisk (*) may be taken as undergraduate work by students in colleges other than the College of Engineering.

### Aeronautical Engineering and Aviation

Assistant Professor WEBER; Flight Instructor HENRY

**A.E. 15.** **Aircraft Repair and Maintenance.** I. 2 Hrs. PR: M. E. 9s, M. E. 11, M. E. 14s. Splicing of wing spars, ribs, tips, stringers, care and replacement of airplane fabrics and finishes. Repairs and maintenance of engines, carburetors, magnetos, propellers, and other aircraft parts. Mr. Henry

**A.E. 101s.** **Flight Training** (35 hours minimum). 2 Hrs. PR: G. 120 or registration in G. 120. Mr. Henry

†**A.E. 124.** **Thesis.** 2 to 5 hrs. Staff

†**A.E. 201.** **Elementary Aerodynamics.** I. 3 Hrs. PR: C. E. 115. Bernoulli's theorem, lift, drag, airfoil sections, flaps, slots. Mr. _____

†**A.E. 202.** **Aerodynamics.** II. 3 Hrs. PR: A. E. 201. Factors affecting performance and control. Mr. _____

†**A.E. 211.** **Aircraft Structures.** II. 4 Hrs. PR: M. 102. Structural analysis applied to airplane design. Mr. _____

†**A.E. 212.** **Aircraft Design.** I. 3 Hrs. PR: A. E. 211. Preliminary design of airplane, including lay-out, weight and balance calculations, performance. Mr. _____

†**A.E. 221. Aircraft Engines.** II. 3 Hrs. PR: M. E. 221. Construction and operating characteristics of aircraft engines. Mr. ____

†**A.E. 222. Aircraft Propulsion.** I. 3 Hrs. PR: A.E. 221. Fixed-pitch and constant-speed propellers, jet and rocket propulsion. Mr. ____

†**A.E. 223. Aircraft Engine Design.** 3 Hrs. PR: A. E. 221. Lay-out of complete engine, sketches of parts, calculations of stresses and weights. Mr. ____

†**A.E. 231. Aircraft Instruments.** 2 Hrs. PR: A. E. 202 and A. E. 221. Tachometers, fuel and oil quantity and pressure gages, temperature gages, air-speed indicators, altimeters, gyro instruments, earth inductor and magnetic compasses. Mr. ____

†**A.E. 241. Air Navigation.** II. 2 Hrs. PR: G. 120. Dead reckoning, radio and celestial navigation. Mr. ____

### SUPPLEMENTAL AVIATION COURSES**

**G. 120. Aviation Ground School.** 3 Hrs. Preparation for written examinations for private pilot certificate. Mr. Baker and Mr. Weber

**G. 121. Aviation Flight.** No credit. Hours to be arranged. Mr. Henry
Fee per hour dual instruction ____ $10.00
Fee per hour solo instruction ____ 7.50

**G. 122. Aviation Ground School.** 5 Hrs. Preparation for written examination for commercial pilot certificate. Mr. Baker and Mr. Weber

## Chemical, Metallurgical, and Ceramic Engineering

Professors HODGE and KOEHLER; Associate Professor SIMONS; Assistant Professor MACDONALD

#### Undergraduate Division

***101. Oil Laboratory.** II. 1 Hr. Primarily for students taking the Petroleum and Natural Gas Option. PR: Chemistry 6 or 107. Mr. Koehler

**102. Blow-pipe Analysis and Assaying.** II. 2 Hrs. Laboratory and recitations. PR: Chemistry 6 or 107. Mr. Macdonald

**105. Chemical Engineering Design.** II. 2 Hrs. PR: M. E. 20; PR or concurrent, M. 102 and Ch. E. 205. Mr. Simons

**109. Chemical Engineering Economics.** I. 2 Hrs. The economic principles applied to layout, location, design, and operation of plants devoted to the production of industrial chemicals. PR: Econ. 30 and Chemistry 15. Mr. Koehler

***110s. Practical Pottery.** S1, S2. 2 Hrs. Fundamentals of clay working. Mr. Koehler and Assistant

**124. Thesis.** I, II. 2 to 5 Hrs. Some problem in chemical engineering or industrial chemistry is selected for investigation. A carefully prepared report is required. Open only to qualified seniors. Staff

†Courses not offered in 1945-46.

**Certain general courses in aviation are offered for University students who wish to learn to fly planes but do not care for credit in aeronautical engineering. Students interested in taking these aviation courses may get further information by writing to the Dean, College of Engineering, West Virginia University.

**201. Unit Organic Processes.** II. 3 Hrs. Unit processes involved in the manufacture of commercial products from organic raw materials, petroleum, benzene and related compounds; intermediates, dyes, drugs, and explosives. PR: Chemistry 233 and Ch. E. 205. Mr. Simons

***202. Water Examination and Purification.** II. 2 Hrs. PR: Chemistry 10 or 107. Mr. Hodge

**203. Chemical Engineering Thermodynamics.** II. 2 Hrs. PR: Ch. E. 204 and 208. Mr. Koehler and Mr. Simons

**204. Chemical Engineering Calculations.** I. 2 Hrs. Industrial stoichiometry; calculations involved in the unit operations and processes of the chemical engineering industries. PR: Chemistry 261 and M. E. 220. Mr. Koehler and Mr. Simons

***205. Elements of Chemical Engineering.** I. 3 Hrs. PR or concurrent: Chemistry 260. Mr. Hodge and Mr. Simons

***206. Engineering Chemistry Laboratory.** I. 1 Hr. Technological tests and analyses of boiler waters, cements and paints. PR: Chemistry 107. Mr. Simons

**207. Principles of Chemical Engineering.** I. 2 Hrs. Continuation of Ch. E. 205; also PR or concurrent: Ch. E. 204. Mr. Hodge

**208. Chemical Engineering Laboratory.** I, II. 2 Hrs. Unit operations of the chemical engineering industries. PR: Ch. E. 205; PR or concurrent: C. E. 115. Mr. Koehler and Mr. Simons

**209. Chemical Engineering Laboratory.** I, II. 2 Hrs. Continuation of Ch. E. 208, involving study of the more difficult unit operations. Mr. Koehler and Mr. Simons

***210. Electrochemical Industries.** I, II. 2 or 3 Hrs. PR: Chemistry 4, and PR or concurrent: E. E. 110 or Chemistry 260. Mr. Koehler

**211. Fuels and Combustion.** I. 2 or 3 Hrs. PR: Chemistry 6 or 107 and M. E. 122 or M. E. 220. Mr. Koehler

**212. Oil-refining Laboratory.** I. 2 Hrs. PR: Chemistry 233 and Ch. E. 101. Mr. Simons

**213. Principles of Gas and Fuel Engineering.** II. 2 or 3 Hrs. PR: Ch. E. 211. Mr. Koehler

**214. Inorganic Chemical Technology.** I. 2 Hrs. PR: Ch. E. 205 and M. E. 220. Mr. Hodge

**215. Organic Chemical Technology.** II. 2 Hrs. PR: Ch. E. 201 and Ch. E. 205. Mr. Hodge

**216. Chemical Engineering Design.** II. 2 Hrs. PR: Ch. E. 105 and Ch. E. 208. Mr. Simons

**217. Evaporation and Distillation.** II. 2 Hrs. PR: Ch. E. 105, Ch. E. 209, and M. E. 220. Mr. Simons

**218. Advanced Chemical Engineering Design.** II. 2 Hrs. PR: Ch. E. 216 and 217. Mr. Simons

**219. Principles of Chemical Engineering.** II. 2 Hrs. Continuation of Ch. E. 207. Mr. Hodge

***220. Metallurgy of Iron and Steel.** I. 2 Hrs. PR: Chem. 6, 10 or 107. Mr. Macdonald

*221. **Metallurgy Laboratory.** I. 1 Hr. Preparation and microscopical examination of 25 specimens of iron and steel; analytical determinations; photomicrographs; to accompany Ch. E. 220. Mr. Macdonald

222. **Metallurgy, Non-ferrous.** II. 2 Hrs. PR: Chemistry 6, 10 or 15. Mr. Macdonald

223. **Metallography.** II. 2 or 3 Hrs. Phase-rule diagrams of alloy systems. Photomicrographs of metals and alloys. PR: Ch. E. 220, 221, 222, and Chemistry 260. Mr. Macdonald

227. **Aircraft Structural Materials.** I. 2 Hrs. PR: A. E. 211. Heavy and light alloys, plastics, fabrics, woods, and other major materials used in the production of aircraft. Mr. Macdonald

230. **Ceramics.** II. 2 or 3 Hrs. A review of the ceramic industries. Chemical and engineering principles applied in the manufacture of ceramic materials. PR: Chemistry 6 or 107. Mr. Koehler

231. **Advanced Ceramics Laboratory.** I. 2 Hrs. Preparation of bodies, glazes, enamels, and glass. Biscuit and glost firing. Coloring agents. Factory control tests. PR: Ch. E. 230. Mr. Koehler

232. **Refractories.** I, II. 2 Hrs. Manufacture, properties, and use of refractory materials. Standard tests. Study of phase diagrams of refractory materials. PR: Chemistry 6 or 107 and Chemistry 260. Mr. Koehler

233. **Glass.** I, II. 2 Hrs. Physical and chemical properties of glass. Methods of analysis of glass and of raw materials. Theory and practice of manufacture. PR or concurrent: Chemistry 260. Mr. Koehler

235s. **Practical Pottery.** SI. 2 Hrs. A continuation of 110S. Mr. Koehler and Assistant

*236s. **Pottery and Ceramic Art.** S2. 2 Hrs. Mr. Koehler and Assistant

### Graduate Division

300. **Seminar.** SI. I, II. 1 to 6 Hrs. Hours to be arranged. Staff

351. **Coal Tar and By-Products.** II. 2 Hrs. PR: Ch. E. 201, 206, and 211. Mr. Hodge

352. **Biochemical Industries.** I. 3 Hrs. PR: Ch. E. 201 and 207. Mr. Hodge

353. **Transformation in Silicates.** I, II. 2 Hrs. PR: Ch. E. 230 Mr. Koehler

354. **Advanced Fuel Engineering.** I. 3 Hrs. PR: Ch. E. 213 Mr. Koehler

355. **Advanced Organic Technology.** I. 3 Hrs. PR: Chem. 233 and either Chem. 238 or Ch. E. 201. Mr. Simons

356. **Advanced Organic Technology.** II. 2 Hrs. PR: Ch. E. 355. Mr. Simons

397, 398. **Research.** I, II. Credit to be arranged. A suitable problem in chemical engineering, metallurgy, or ceramics is selected for investigation. PR: Ch. E. 207 and 208 Mr. Koehler and Staff

## Civil Engineering

Professors DAVIS, DOWNS, and SPEIDEN; Assistant Professor BAKER

### Undergraduate Division

*1. **Surveying.** I, II. 2 Hrs. Elementary surveying and spherical trigonometry. Primarily for freshmen. PR: Math. 4. Mr. Baker

*2. **Surveying.** I. 4 Hrs. PR: C. E. 1 and Math. 4. Mr. Baker

*3. **Railroad Curves.** II. 2 Hrs. Continuation of C. E. 2. Mr. Baker

4s. **Summer Surveying.** S1 (5 weeks). 5 Hrs. PR: C. E. 3 Mr. Baker

*5. **Land Surveying.** I. 4 Hrs. Primarily for forestry students. PR: Math 10. Mr. Baker

*6. **Topographic Mapping.** II. 2 Hrs. Primarily for forestry students. PR: C. E. 5. Mr. Baker

101. **Elements of Highway Engineering.** I, II. 3 Hrs. PR: C. E. 4S. Mr. Downs

102. **Railway Engineering.** II. 3 Hrs. PR: C. E. 4S. Mr. Downs

103. **Highway Design.** I. 3 Hrs. PR: C. E. 101. Mr. Downs

†104. **Airports.** I. 2 Hrs. PR: Selection of site; layout, earthwork; drainage; pavements and surfacing, airport facilities; maintenance and operation. Primarily for juniors in Aeronautical Engineering. Mr. Downs

*110. **Structural Drafting.** I. 2 Hrs. PR: M. E. 20 and registration in M. 101. Mr. Speiden

*115. **Fluid Mechanics.** I, II. 2 or 3 Hrs. PR: M. 102 or 104 (or registration in M. 102 or 104). Mr. Speiden

116. **Water Supply Engineering.** I. 4 Hrs. PR: C. E. 115. Mr. Speiden

117. **Municipal Engineering.** I. 2 Hrs. PR: C. E. 115. Mr. Speiden

118. **Sanitary Engineering.** II. 3 Hrs. PR: C. E. 115. Mr. Speiden

120. **Materials of Construction.** I. 2 Hrs. PR: M. 102. Mr. Downs

121. **Structural Engineering.** II. 4 Hrs. PR: M. 102. Mr. Davis

122. **Structural Engineering.** I. 2 or 3 Hrs. PR: M. 102. Mr. Davis

123. **Bridge Design.** I. 3 Hrs. PR: C. E. 121. Mr. Davis

124. **Thesis.** I, II. 2 or 4 Hrs. Special design, investigation, or original research of some assigned topic relating to civil engineering. Staff

200. **Water-Power Engineering.** II. 2 Hrs. PR: C. E. 115. Mr. Speiden

201. **Hydraulic Measurements.** I, II. 1 Hr. PR: C. E. 115. Mr. Speiden

202. **Water Purification.** I. 3 or 4 Hrs. PR: registration in C. E. 116. Mr. Speiden

203. **Sewage Disposal.** II. 3 Hrs. PR: C. E. 115. Mr. Speiden

204. **Advanced Structures.** II. 3 Hrs. PR: C. E. 121. Mr. Davis

206. **Concrete Construction.** II. 3 Hrs. PR: C. E. 121. Mr. Davis

207. **Foundations.** I. 3 Hrs. PR: C. E. 121. Mr. Davis

208. **Transportation Economics.** I or II. 2 Hrs. PR: C. E. 102 Mr. Downs

209. **Highway Laboratory.** I. 2 Hrs. PR: M. 103. Mr. Downs

210. **Photogrammetry.** I. 2 Hrs. PR: C. E. 4s. Mr. Baker

†211. **Photographic Mapping.** I. 2 Hrs. PR: C. E. 1 and G. 120. Cameras; photographic missions; distortion, interpretation, and mapping methods. Primarily for seniors in Aeronautical Engineering. Mr. Baker

### Graduate Division

**351. Advanced Water-Supply Engineering.** I, II. Credit to be arranged. PR: C. E. 116. Mr. Speiden

**352. Sewerage and Sewage Disposal.** I, II. Credit to be arranged. PR: C. E. 118. Mr. Speiden

**353. Advanced Design Problems.** I, II. Credit to be arranged. Mr. Davis and Mr. Speiden

**354. Statically Indeterminate Structures.** I, II. Credit to be arranged. PR: C. E. 204. Mr. Davis

**355. Soils Mechanics.** I, II. Credit to be arranged. Staff

**397, 398. Research.** I, II. Credit to be arranged. Mr. Davis and Mr. Speiden

## Electrical Engineering

Professors FORMAN and HALL; Associate Professors E. C. JONES and SEIBERT; Assistant Professor WEBER; Instructor MARSH

### Undergraduate Division

**2. Elementary Electrical Laboratory.** SI, I, II. 1 Hr. Component parts of electrical machines and apparatus. Safety rules and resuscitation. Mr. Jones and Mr. Seibert

***110. Elements of Electrical Engineering.** II. 4 Hrs. Primarily for sophomores in electrical engineering. PR: Math. 108 (or registration in Math. 108); Physics 106 (or registration in Physics 106). Mr. Weber

***102, *103. Elements of Electrical Engineering.** I and II. 4 Hrs. each semester. For students in mechanical and mining engineering. Mr. Hall and Mr. Weber

**104. Illumination.** I, II. 2 Hrs. PR: Physics 106. Mr. Forman

**110. Elements of Electrical Engineering.** I, II. 5 Hrs. PR: Physics 106. For students in chemical, civil, and petroleum and natural gas option in mining engineering. Mr. Hall and Mr. Jones

**124. Thesis.** I, II. 2 to 5 Hrs. Special investigation or original research on some topic relating to electrical engineering. Mr. Forman and Mr. Hall

**125s. Elements of Electrical Engineering.** SI. 3 to 5 Hrs. Equivalent of E. E. 100 or E. E. 110. Mr. Jones

**230. Direct-Current Machinery.** I. 3 Hrs. PR: E. E. 100. Mr. Jones and Mr. Weber

**231. Direct-Current Machinery Laboratory.** I. 2 Hrs. To accompany E. E. 230. Mr. Jones and Mr. Weber

**235. Alternating-Current Theory and Measurement.** I. 4 Hrs. PR: E. E. 100. Mr. Forman and Mr. Jones

**237. Principles of Alternating-Current Machinery.** II. 4 Hrs. PR: E. E. 102 or E. E. 235. Mr. Jones

**239-240. Alternating-Current Machinery.** I and II. 3 Hrs. each semester. PR: E. E. 237 accompanied by E. E. 241. Mr. Forman

**241. Electrical Engineering Laboratory.** I. 2 Hrs. To accompany E. E. 239. Mr. Jones

242. **Advanced Electrical Laboratory.** II. 2 Hrs. PR: E. E. 241. Advanced and special laboratory problems. Mr. Jones

244. **Electrical Calculations and Design.** II. 3 Hrs. PR: E. E. 102 or 230 and 237 (or registration in E. E. 237). Mr. Jones

245. **Electric Control.** I. 2 Hrs. PR: E. E. 237. Mr. Jones

247. **Electrical Power Transmission.** II. 3 Hrs. PR: E. E. 237 or 103. Mr. Hall

250. **Electronics.** II. 4 Hrs. E. E. 235. Theory of electronic devices, their characteristics, and applications. Mr. Seibert and Mr. Weber

251. **Electrical Measurements Laboratory.** II. 1 Hr. To accompany E. E. 250 for communication majors. Mr. Seibert and Mr. Marsh

253. **Radio Engineering.** I. 3 Hrs. PR: E. E. 250. Mr. Seibert

254. **Radio Engineering.** II. 3 Hrs. PR: E. E. 253. Mr. Seibert

255. **Radio Laboratory.** I. 3 Hrs. To accompany E. E. 253. Mr. Seibert and Mr. Marsh

256. **Radio Laboratory.** II. 2 Hrs. To accompany E. E. 254. Mr. Seibert and Mr. Marsh

257. **Aircraft Electrical Systems.** I. 3 Hrs. PR: E. E. 103. Remote indication, control, heating, ignition, starting, and instruments. Mr. Weber

258. **Aircraft Radio.** II. 3 Hrs. PR: E. E. 103. Communications, navigation, blind landing, and absolute altimeter. Mr. Seibert

260. **Electrical Communications.** I. 3 Hrs. PR: Math. 240 or 253. Mr. Forman

261. **Electrical Communications.** II. 3 Hrs. PR: E. E. 260. Mr. Forman

270. **Engineering Economics.** II. 3 Hrs. For seniors and graduates only. Economic principles involved in the selection and design of electrical equipment and in the utilization of electrical energy. Mr. Hall

274. **Industrial Applications of Electricity.** I, II. 3 Hrs. For seniors or graduate students. Mr. Hall

280-281. **Electrical Problems.** I, II. Credit to be arranged. For junior, senior, and graduate students. Staff

282. **Symmetrical Components.** II. 3 Hrs. PR: E. E. 239. Mr. Forman

283. **Telephone Engineering.** I. 3 Hrs. PR: E. E. 235. Mr. Forman

284. **Transients.** II. 3 Hrs. PR: E. E. 235. Mr. Forman

285. **Electric Power Transmission and Distribution.** I, II. 3 Hrs. Advanced theory and calculations of transmission lines and networks. PR: E. E. 247. Mr. Hall

286. **Industrial Control.** II. 3 Hrs. PR: E. E. 245. Electrical control devices in industry, their application and use in the protection and control of electrical and mechanical equipment. Mr. Jones

### Graduate Division

397, 398. **Research.** I, II. Credit to be arranged. Advanced research or special investigations on some topic related to electrical engineering. Mr. Forman or Mr. Hall

## General

Professors FORMAN and BOOMSLITER

### Undergraduate Division

**1. Engineering Lectures.** I. (No credit). Required of all freshmen in engineering. A series of lectures designed to acquaint the engineering student at the beginning of his course with the profession he has chosen. Mr. Boomsliter

**101. Engineering Society.** I, II. ½ Hr. Primarily for juniors. Required of all candidates for degrees in engineering. Membership, attendance, and active participation in Engineering Society.
Mr. Forman and Committee

**102. Engineering Society.** I, II. ½ Hr. Continuation of G. 101. For juniors.
Mr. Forman and Committee

**103. Engineering Society.** I, II. ½ Hr. For seniors. Continuation of G. 101 and 102. Mr. Forman and Committee

**104. Engineering Society.** I, II. ½ Hr. Continuation of G. 103. For seniors.
Mr. Forman and Committee

**106s. Shopwork.** SI. 3 Hrs. Summer shop practice out of residence. For students in industrial arts. This work is to be along the line of the major or minor group.

**107s. Shopwork.** SII. 2 Hrs. Continuation of G. 106s.

**110. Business Law.** I, II. 3 Hrs. General principles of business law. The law of contracts. Standard contract forms. PR: Economics 103, 30, or 1 and 2, and M. 102. Mr. Boomsliter

NOTE: For courses in Aviation see page 216.

## Mechanical Engineering

### Drawing, Machine Construction, Power Engineering, Machine Design, and Industrial Engineering

Professor GRUMBEIN; Associate Professor H. M. CATHER; Assistant Professors GROW and WHITE; Instructors SEAMAN, L. E. JONES, MARTIN, DE TURK, and REYNOLDS

### Undergraduate Division

***2. Woodworking.** I. 2 Hrs. Mr. Seaman

***3. Woodworking.** I, II. 2 Hrs. PR: M. E. 2. Mr. Seaman

***4. Pattern Making.** I. 2 Hrs. PR: M. E. 6. Mr. Seaman

**6. Foundry.** I, II. 1 Hr. Mr. Seaman

***7. Welding and Heat Treatment.** I, II. 1 Hr. Mr. Jones and Mr. Martin

**8s. Woodfinishing.** SI. 2 Hrs. The proper selection of colors for different kinds of wood, the mixing of fillers, stains, and paints, the application of varnish, shellac, and oil finishes. Mr. Seaman

**9s. Welding and Heat Treatment of Alloys.** 2 Hrs. Care and use of gas, arc and resistance electric welding equipment in the fabrication of aircraft sheet metals, structural members, and tubing.
Mr. Jones and Mr. Martin

*10. **Pipefitting.** I, II. 1 Hr. Mr. Martin

*11. **Machine Work.** I, II. 2 Hrs. Mr. Jones and Mr. Martin

*12. **Machine Work.** I, II. 1 Hr. Continuation of M. E. 11, which is a prerequisite. Mr. Jones and Mr. Martin

14s. **Aircraft Woodworking.** 2 Hrs. Care and use of handtools and power machines in construction of typical joints, splices, and patterns for aircraft. Varnishing, doping, and refinishing. Mr. Seaman

*20. **Mechanical Drawing.** I, II. 3 Hrs. Staff

21s. **Mechanical Drawing.** SI. 2 Hrs. The use and care of drawing instruments, freehand sketching, and lettering. This course is intended for those who are teaching manual training in public schools. Mr. Cather

*24. **Empirical Design.** I, II. 2 Hrs. PR: M. E. 11 and M. E. 20. Staff

*26. **Descriptive Geometry.** I, II. 3 Hrs. PR: M. E. 20 and solid geometry. Staff

27. **Mechanism.** I, II. 2 Hrs. Lectures, recitations, and graphical solutions. PR: M. E. 20 and 26. Staff

*29. **Mechanism.** I, II. 4 Hrs. Lectures, recitations, and graphical solutions. PR: M. E. 20 and 26. Staff

*101. **Woodworking.** I, II. 2 Hrs. Continuation of M. E. 3. Mr. Seaman

*103. **Foundry Work.** Semester and credit to be arranged. Advanced work for special students. Continuation of M. E. 6. Mr. Seaman

*105. **Machine Construction.** I, II. 2 Hrs. PR: M. E. 12. Two three-hour periods. Mr. Jones and Mr. Martin

*106. **Shop Methods.** II. 2 or 3 Hrs. Continuation of M. E. 105. Two three-hour periods. Mr. Jones

*107. **Machine Construction.** Semester and credit to be arranged. Advanced work for special students. Continuation of M. E. 105 and 106. Mr. Jones

113. **Machine Design.** I, II. 4 Hrs. PR: M. 102 and M. E. 29. Two lectures and recitations and two 3-hour computation periods. Mr. White

122. **Mechanical Laboratory.** I, II. 2 Hrs. PR: Physics 106 and M. 101, and accompanying M. E. 221. Mr. Cather and Mr. Reynolds

123. **Engineering Laboratory.** I. 2 Hrs. PR: M. E. 122. Mr. Grumbein and Mr. Cather

124. **Thesis.** I, II. 2 to 4 Hrs. Investigation or original research on some special topic relating to mechanical engineering. Staff

203. **Advanced Machine Design.** I. 4 Hrs. Continuation of M. E. 113. Two lectures and recitations and two 3-hour computation periods. Mr. White

205. **Industrial Engineering.** I. 3 Hrs. Mr. .....

206. **Industrial Engineering.** II. 3 Hrs. PR: M. E. 205. Mr. .....

220. **Heat and Power Engineering.** I, II. 3 Hrs. PR: Phys. 105 and 107 and Math. 108. Mr. Cather and Mr. Reynolds

*221. **Thermodynamics of Engineering.** I, II. 3 Hrs. PR: Physics 105 and 107, and Math. 108 (or reg. in Math. 108). Mr. Grumbein and Mr. Cather

*222. **Heat Engines.** II. 3 Hrs. Continuation of M. E. 221
Mr. Grumbein and Mr. Cather

*223. **Steam Power Plants.** I. 3 Hrs. PR: M. E. 221.
Mr. Grumbein and Mr. Cather

224. **Steam Turbines.** I, II. 3 Hrs. PR: M. E. 222. Mr. Cather

225. **Gas Engines and Gas Engineering.** II. 3 Hrs. Fuel gases, gas production and transmission, gas engines, etc. PR: M. E. 222.
Mr. Grumbein and Mr. Cather

227. **Steam Power Plant Design.** II. 2 Hrs. Continuation of M. E. 223.
Mr. Cather

228. **Engineering Laboratory.** II. 2 Hrs. PR: M. E. 123.
Mr. Grumbein and Mr. Cather

229. **Internal Combustion Engines.** II. 2 Hrs. PR: M. E. 222. Mr. Cather

#### Graduate Division

397, 398. **Research.** I, II. Credit to be arranged. Investigation or original research on some special topic relating to mechanical engineering.
Mr. Cather and Staff

## Mechanics

Professor BOOMSLITER; Associate Professor C. H. CATHER; Instructor WORRELL

#### Undergraduate Division

*101. **Statics.** I, II. 3 Hrs. PR. Math. 108 (or registration in Math. 108), and Physics 105 and 107. Staff

*102. **Mechanics of Materials.** I, II. 4 Hrs. PR: M. 101. Staff

*103. **Materials Testing Laboratory.** I, II. 1 Hr. PR: Registration in M. 102.
Staff

*104. **Kinetics.** I, II. 3 Hrs. Continuation of M. 101. PR: M. 101. Staff

200. **Advanced Mechanics of Materials.** I or II. 2 to 4 Hrs. PR: M. 102.
Staff

201. **Advanced Kinetics.** II. 3 Hrs. PR: M. 101 and 104. Staff

202. **Advanced Materials Laboratory.** I or II. 2 to 4 Hrs. PR: M. 102.
Staff

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# COURSES IN THE SCHOOL OF MINES

Assistant Profssor HOLLAND; Assistant Director SPINDLER

#### Undergraduate Division

100. **Mine Surveying.** I. 2 Hrs. PR: C. E. 1. Staff

101. **Mine Surveying.** II. 2 Hrs. PR: E. M. 100. Staff

102s. **Mine Surveying.** SI. 5 Hrs. This course is a continuation of and gives field practice supplementing E. M. 101. It must be taken during the summer term immediately following the semester in which E. M. 101 is taken. Staff

*106. **Elementary Mineralogy.** I, II. 1 or 2 Hrs. PR: Chemistry 4. Staff

107. **Mining Methods.** I. 4 Hrs. Inspection trips, with written reports, are required. PR: Physics 106 and Geology 1. Staff

111. **Mining.** I. 2 Hrs. Explosives, timbering, drilling, and shaft sinking. PR: Chemistry 6 and Physics 106. Mr. Holland

114. **Mine Management.** II. 2 Hrs. PR: E. M. 212. Mr. Spindler

115. **Mine Design.** I. 2 Hrs. PR: E. M. 212 and registration in C. E. 122. Staff

116. **Mine Design.** II. 3 Hrs. Continuation of E. M. 115, which is prerequisite. Staff

117. **Industrial Safety Engineering.** I. 3 Hrs. PR: Senior standing. Mr. Spindler

118. **Coal Preparation.** II. 3 Hrs. PR: M. E. 212 and 202. Staff

119. **Mine Equipment and Machinery.** II. PR: E. E. 102 and E. M. 212. Mr. Holland

120. **Thesis.** I, II. 2 to 4 Hrs. An individual problem on some phase of mining. None but exceptional students having high scholastic standing will be permitted to elect this course. Mr. Spindler and Mr. Staab

*201. **Oil-Field Development.** I. 2 Hrs. PR: Geology 3. Staff

202. **Coal Laboratory.** I, II. 1 Hr. Coal Analysis. PR: Chemistry 6 or Chem. 15. Mr. Spindler

*203. **Geological Surveying.** II. 2 Hrs. PR: E. M. 101 and Geology 161. Staff

204. **Oil and Gas Production.** II. 4 Hrs. PR: E. M. 201 and M. 101. Mr. Staab

205. **Gas Measurement Engineering.** II. 2 Hrs. PR: E. M. 201 and C. E. 115. Staff

212. **Coal Mining.** II. 4 Hrs. Haulage, hoisting, and drainage. PR: E. M. 111. Mr. Holland

213. **Mine Ventilation.** I. 3 Hrs. PR: E. M. 212 and 107. Mr. Holland

### Graduate Division

301, 302. **Advanced Mine Design.** I, II. Credit to be arranged. Advanced detail design and layout of coal mine plant, particularly incorporating new ideas of machines and mining methods. Staff

351s. **Coal Mining.** SI. 3 Hrs. PR: Chemistry 10 hours, physics 8 hours, and accompanied or preceded by general geology. This course is designed especially for students who are planning to teach mining subjects in high school, and is not open to students taking E. M. 102s, 111, and 212. Hours to be arranged. Mr. Spindler and Mr. Holland

397, 398. **Research.** I, II. Credit to be arranged. An individual problem in some phase of mining. A carefully prepared report is required. Mr. Spindler and Mr. Holland

# The Graduate School

## ORGANIZATION

By order of the Board of Governors of West Virginia University a University Graduate School is established, whose roots are implanted in all University undergraduate work, irrespective of departments or schools. The Graduate School is empowered (1) to direct research and investigation with particular reference to problems of the state and (2) to train and recommend to the Board of Governors candidates for the degrees of Master of Science, Master of Science in Home Economics Education, Master of Science in the various Engineering branches, Master of Arts, Master of Music, and Doctor of Philosophy.

All regulations governing the Graduate School such as the determination of curricula, projects, majors, minors, standards, thesis requirements, and like and similar matters shall be formulated by the Graduate Council and presented to the Graduate Faculty for its consideration and action.

### THE STUDENT BODY

Seniors in the colleges of West Virginia University who are within 10 semester hours of graduation may, with the approval of the Graduate Council, enroll for courses in the Graduate School, for which they may receive graduate credit after obtaining their bachelors' degrees. Such graduate courses must not have been offered for undergraduate credit, and in every case permission must have been requested before or at the time of enrolling for the course or courses.

### THE ADVISER

The adviser will arrange a specific course of study to be approved by the Council and, in the case of candidates for advanced degrees, will preside at the candidate's qualifying and final examination.

## REQUIREMENTS FOR GRADUATE DEGREES

(For a List of Graduate Degrees Offered see page 56.)

## GENERAL REGULATIONS

1. *Candidacy:*

Admission to candidacy for any graduate degree is conditioned upon the fulfillment of the requirements for admission to the Graduate School, and also the particular requirements of undergraduate preparation for the field of study in which the student wishes to specialize. Detailed information concerning candidacy for the Master's degree and the degree of Doctor of Philosophy may be found on the pages immediately following.

2. *Scholarship:*

No credits are acceptable toward an advanced degree which are reported with a grade lower than C.

Reasonable standards of oral and written English must be maintained.

3. *Curriculum:*

Credit toward a graduate degree may be obtained only for courses listed in this Catalogue and numbered 200-399.

No more than fifteen hours of graduate courses in any one semester nor more than six hours of graduate courses in any one term of the summer session may be carried by a student. Any exceptions to this rule must be approved in advance by the Graduate Council.

4. *Residence and Extension:*

Residence credit for special field assignments and for work taken off the University Campus shall be allowed only with the prior approval of the Graduate Council.

No more than 15 hours of extension work may be counted by any one student toward the Master's degree.

The maximum credit that students pursuing graduate work by extension may receive in any one field shall be 8 semester hours.

No more than 6 hours of graduate credit obtained in other approved institutions may be considered in meeting the requirements for the Master's degree in West Virginia University. Graduate credit so accepted toward the Master's degree must meet the usual departmental requirements for a continuous and unified program of graduate study and will reduce correspondingly the number of hours of graduate work by extension offered in West Virginia University extension centers that may be offered in meeting the requirements for the Master's degree.

The time during which credit may be acquired in extension offered by institutions outside the state shall be limited in any area as determined by the University Committee on Extension and properly publicized by the Director of Extension.

Each graduate student in residence, whether taking course work or engaged in conducting research or in writing a thesis or report, must register at the beginning of each semester or term during which graduate work is being done. He must be registered during the session in which he is to appear for final examination. Under exceptional conditions and with the prior approval of the Graduate Council a graduate student may be permitted to meet a portion of the requirements for the degree in absentia, provided the customary residence and other requirements are met.

5. *Theses and Problem Reports:*

All theses and problem reports shall be presented in the form prescribed by the Graduate Council at least one month previous to the Commencement Day on which the degree is expected. If the thesis or problem report is accepted, typewritten and bound copies shall be submitted to the Secretary of the Graduate Council at least one week before the degree is to be conferred; a minimum of three copies of the master's or doctor's thesis or problem report is required.

6. *Final Examinations:*

The candidate shall not be eligible for the final examination until his thesis or problem report has been approved by the examining committee. Following the approval of the candidate's thesis or problem report and the satisfactory completion of the courses in residence and the satisfaction of other graduate requirements, he shall be given a final examination by his advisory committee.

7. *Commencement:*

At the time of registration for the semester or session in which the candidate expects to receive a graduate degree, he shall submit a formal request to the Chairman of the Graduate Council for the conferring of such degree. The candidate must have completed all requirements for the degree which he wishes to receive, at least one week before Commencement Day.

## THE DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE

### REQUIREMENTS FOR CANDIDACY

Satisfactory fulfillment of General Regulation No. 1 for graduate degrees (stated above) will admit an applicant to candidacy.

### REQUIREMENTS FOR COMPLETION

The completion within a period of 7* years immediately preceding the conferring of the degree except with the permission of the Graduate Council, of no less than 30 credit hours of graduate work approved by the adviser.

RESIDENCE: A minimum is required of two semesters, or one semester and three summer terms, or five summer terms of residence in full-time graduate study at West Virginia University. For students offering 15 credit hours in extension, a minimum period of residence at West Virginia University of one semester or three summer terms shall be required for the Master's degree.

THESIS OR PROBLEM REPORT: A thesis or problem report granting no more than 6 hours of credit may be required by the faculty of the college, school, or department in which the candidate's major interest lies.

FINAL EXAMINATION: An examination, oral or written or both at the option of the candidate's examining committee, shall be required, covering the candidate's thesis or problem report, studies in his major and minor fields, and his ability to apply facts and principles.

SPECIAL REQUIREMENTS: The candidate must meet the special requirements of the department in which he pursues his major study.

## THE DEGREE OF DOCTOR OF PHILOSOPHY

### REQUIREMENTS FOR CANDIDACY

Admission to the Graduate School and enrollment in graduate courses does not of itself imply acceptance of the applicant for a doctor's degree. After a period of residence the applicant will be admitted to a comprehensive

*This ruling is discontinued for the duration of the War.

preliminary or qualifying examination (either oral or written or both) in which he must demonstrate (a) a grasp of the important phases and problems of the field of study in which he proposes to major and an appreciation of their relation to other fields of human knowledge and accomplishments, (b) the ability to employ rationally the instruments of research that have been developed in his major field, and (c) the ability to read French and German to the satisfaction of his examining committee.[1]

When an applicant has successfully passed his qualifying examination he will be formally promoted to candidacy for the doctor's degree. Admission to candidacy must precede the final examination for the doctor's degree by at least one academic year. Graduate courses pursued in fulfillment of the requirements for the Master's degree, if of suitable character and quality, may be credited toward the doctorate.

## REQUIREMENTS FOR COMPLETION

(a) CURRICULUM: The degree of Doctor of Philosophy is not awarded for the mere accumulation of course credits nor for the completion of a definite residence requirement. The exact amount and nature of course work to be undertaken by a candidate will be determined in the light of his previous preparation and the demands of his chosen field of application. The aggregate of correlated courses of graduate instruction should, however, be no less than 60 semester hours, exclusive of research or thesis, except research or thesis credits earned for the Master's degree. These credits shall be ordered and distributed so as to promote broad and systematic knowledge and the ability to carry on independent research.

(b) RESIDENCE: In general the requirements for the Doctor of Philosophy degree contemplate at least three years of full-time graduate work beyond the bachelor's degree. A minimum of 36 weeks in residence in full-time graduate study at West Virginia University is required.

(c) THESIS: The candidate must submit a thesis pursued under the direction of the faculty of this University on some problem in the field of his major interest. The thesis must present the results of the candidate's individual investigations and must embody a definite contribution to knowledge.

(d) SPECIAL REQUIREMENTS: The candidate must satisfy such special requirements subject to the approval of the Graduate Council, as may be required by the faculty of the college or department in which his major lies. All required examinations in modern languages shall be taken not later than one academic year before the final examination for the degree.

(e) FINAL EXAMINATION: If the candidate's thesis is approved and he has fulfilled all other requirements stated above, he will be admitted to final oral examination on his thesis before his examining committee. At the option of this committee, a comprehensive written examination may also be required.

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[1]With the approval of the Graduate Council, one other language may be substituted for French or German.

# The School of Journalism

## ORGANIZATION AND PURPOSE

The first instruction in journalism at West Virginia University consisted of a two-hour course in news writing offered in 1915 in the Department of English of the College of Arts and Sciences. A sequence of professional courses was inaugurated by the same department in 1920. As the demand increased, a complete professional curriculum was made available. In 1927 an additional full-time instructor was engaged, larger quarters were obtained, and a separate Department of Journalism was created.

In consequence of the substantial development over nearly two decades and in view of the rapid advancement of professional schools of journalism throughout the nation, the University Board of Governors on April 22, 1939, separated the journalism unit from the College of Arts and Sciences and reorganized it as a School of Journalism with an administrative status similar to that of other schools and colleges of the University. Since that time the School has conferred the degree of Bachelor of Science in Journalism on 70, of whom 27 are men. Since 1920 the University has graduated 235 persons, of whom slightly more than half are men, with journalism as a major field of study.

### Aims

The main purposes of the school are these: (1) to find and prepare superior young men and young women who contemplate reporting and other journalistic writing, or the editing and management of newspapers or special periodicals, as a career; (2) to provide in addition to thorough and complete technical training the broad informational background and sure intellectual discernment that distinguish educated persons; (3) to cultivate a full sense of the responsibility that modern newspaper men and women must assume in their relation to the community, state, and nation, and familiarize them with tested procedure in pursuing objectives of high social value; (4) to stimulate an inquiring attitude toward journalism as an institution and promote scholarly research in its various branches; (5) to furnish a suitable educational foundation for persons looking forward to business or professional work closely related to journalistic practice.

### Standards

From the beginning the instruction in journalism at West Virginia University has been in accord with the best professional-school standards. The emphasis has ever been on quality, not numbers. Only students with a scholastic rating of approximately B or higher have been encouraged to take the basic courses in reporting, and those not able to maintain an equally high standing in the first journalism courses have been requested to choose a major elsewhere.

The instructional staff has been engaged with careful attention to their individual ability to give expert instruction in particular fields. The curriculum has been kept constantly abreast of progress in leading educational centers. Class sizes have never reached proportions where individual instruc-

tion had to be sacrificed. The school now conforms to recognized national standards and is ranked with the superior professional schools of the United States.

### Practice Opportunities

Opportunities for applying the principles of sound newspaper practice are good. The Athenaeum, a semiweekly campus newspaper, is produced by journalism students in the various workrooms of the school. Reporters working on news runs cover the University community thoroughly, and trained deskworkers not only edit the local reporters' copy but also prepare for publication the dispatches of state, national, and world news-collection agencies. Local pictures are taken by the campus newspaper's own staff photographer, and other news pictures are selected from mats purchased from a national distributor.

All reporters serve as correspondents of weekly and daily newspapers. Some get additional practice by working part-time for Morgantown dailies or by taking vacation positions on newspapers of their home community. As a rule, student journalists have staff positions on, or are regular contributors to, other campus publications.

## ADMISSION

### Regular Students

A candidate seeking admission to the School of Journalism with the view of obtaining a degree must have satisfied the requirements for matriculation in one of the University undergraduate colleges and must have earned at least 58 semester hours of college credit. A student deficient in physical education and military science will be required to obtain them as soon as possible.

During his freshman and sophomore years he should have completed satisfactorily all or most courses specified for pre-journalism majors. A regularly enrolled student may elect courses numbered below 100 provided such action will be advantageous in connection with a major or minor sequence and provided the total credit value of such courses does not exceed 12 hours. For all such courses, however, in excess of 6 hours taken during any one semester the maximum number of honor points that may be acquired will be one for each hour of credit. A pre-journalism student not maintaining at least a C average during his first two years in all college subjects is strongly advised not to enroll in the professional school.

### Typewriting and Shorthand

Before or soon after entering the University, a student planning to become a journalism major should learn the touch system of typewriting. After a few weeks every reporter is required to submit copy in typewritten form. He will find it especially advantageous to have his own machine.

Since shorthand is of great practical value and frequently aids a graduate in obtaining a position, every student is urged to learn it before coming to college or during his freshman or sophomore year.

## REQUIREMENTS FOR THE DEGREE

A candidate who has satisfied all general requirements of the University and who as a regularly enrolled student of the School of Journalism has earned 64 semester hours of credit of a value specified in the foregoing and in the subjects listed in one of the professional curricula hereinafter outlined will be recommended for the degree of Bachelor of Science in Journalism, provided the combined number of his credits acquired as a pre-journalism student and as a regularly enrolled journalism major totals no fewer than 128. As a minimum professional requirement, 25 of the 64 semester credits earned after the student has enrolled in the school must be obtained in journalism subjects. Moreover, no fewer than 60 of the 64 hours mentioned above shall be obtained in courses numbered between 100 and 300.

To be eligible for graduation, a student must have completed 12 semester hours in one language or 6 semester hours in each of two foreign languages in college; or he must have offered 2 units in a modern foreign language for entrance and must have completed 6 hours in the same language in college. He must also have acquired 8 hours of credit in one of the following laboratory sciences: botany, chemistry, geology, physics, psychology, zoology, and biology.

### The Minor Field

Since the prospective newspaper worker needs the broadest and most thorough education possible, he will find his opportunities and usefulness enlarged if while in the professional school he devotes himself to a second field of concentration. To meet the requirements for a minor, he must earn at least twelve semester hours of credit in some other subject than journalism, nine of which must be in junior and senior courses.

Minors especially recommended for journalism students are business administration, economics, education, English, history, political science, and sociology. Since there is a growing demand for journalistic writers who can interpret developments in agriculture, astronomy, chemistry, home economics, physics, and other related subjects, students with sufficient technical background will be encouraged to select a minor in one of these scientific fields.

## CURRICULA

The School of Journalism offers three curricula designed to fit students for specialized branches of journalistic practice or for occupations or professions for which journalistic training is desirable or necessary preparation. Each sequence leads to the degree of Bachelor of Science in Journalism.

### The News-editorial Curriculum

The news-editorial sequence is designed primarily for the student who wishes to prepare himself for work as a reporter, copyreader, special writer, or departmental editor and who hopes to advance later to a still more responsible position in the general news and editorial field.

**Third Year**

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Jour. 103—Copy Editing | 3 | Jour. 104—Copy Editing | 3 |
| Jour. 105—Applied Newspaper Management | 2 | Jour. 106—Applied Newspaper Management | 2 |
| Jour. 127—Hist. of American Jour. | 3 | Soc. 101—Intro. to Sociology | 3 |
| Jour. 113—Principles of Advertising | 3 | Jour. 220—Newspaper and Magazine Article Writing | 3 |
| Pol. Sci. 106—Amer. State and Local Government | 3 | Eng. 142—Shakespeare | 3 |
| Electives | 2-4 | Advanced Political Science | 3 |
| | | Electives | 2-4 |
| | 16-18 | | 16-18 |

**Fourth Year**

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Jour. 230—Editorial Writing and Policy | 3 | Jour. 231—Social Responsibility of Journalism | 3 |
| Jour. 221—Critical Writing or Jour. 120—News Photography | 2 | Jour. 128—Adv. Reporting | 3 |
| Eng. 181—Bible Literature | 3 | Jour. 210—Law of the Press | 2 |
| Phil. 104—Intro. to Philosophy | 3 | Advanced social science or literature or language | 3-7 |
| Electives | 5-7 | Electives | 8-10 |
| | 16-18 | | 16-18 |

## The Advertising-management Curriculum

The advertising-management professional sequence is arranged for the student who expects to enter some branch of the business department of a newspaper and who looks forward sooner or later to the management or ownership of a publication. Opportunities in the business department are considered even better than in the news-editorial branch.

**Third Year**

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Jour. 103—Copy Editing | 3 | Jour. 106—Applied Newspaper Management | 2 |
| Jour. 105—Applied Newspaper Management | 2 | Jour. 112—Publicity, Propaganda and the Public Mind | 2 |
| Jour. 110—Newspaper Typography | 2 | Jour. 114—Newspaper Advertising | 2 |
| Jour. 113—Principles of Advertising | 3 | Geol. 109—Economic Geography | 3 |
| Pol. Sc. 106—Amer. State and Local Government | 3 | Pol. Sci. 107—Amer. City Gov't. | 3 |
| Soc. 101—Intro. to Sociology | 3 | Electives | 4-6 |
| Electives | 0-2 | | |
| | 16-18 | | 16-18 |

**Fourth Year**

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Jour. 230—Editorial Writing and Policy | 3 | Jour. 108—Community Newspaper | 2 |
| Eng. 142—Shakespeare, or Eng. 181—Bible Literature | 3 | Jour. 231—Social Responsibility of Journalism | 3 |
| Econ. and Bus. Administration | 6 | Journ. 128—Adv. Reporting | 3 |
| General Electives | 4-6 | Jour. 210—Law of the Press | 2 |
| | | Econ. and Bus. Administration | 6 |
| | | General Electives | 0-2 |
| | 16-18 | | 16-18 |

## The General Curriculum

The general curriculum is planned for the student who desires to make journalism a special field of concentration while he is getting a broad, general education of modern content. Many who complete this sequence will take a position in high school as a teacher of journalism, English, and social sciences, and will have charge of the school publications. Some will find employment as public-relations writers or directors, or as secretaries or assistants to executives. Others may enter the federal or state civil service or engage in still other kinds of work for which journalistic training provides a suitable foundation.

**Third Year**

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Jour. 103—Copy Editing | 3 | Jour. 112—Publicity, Propaganda and the Public Mind | 2 |
| Jour. 127—Hist. of Amer. Journalism | 3 | Jour. 220—Newspaper and Magazine Article Writing | 3 |
| Soc. 101—Intro. to Sociology | 3 | Geol. 109—Economic Geography | 3 |
| Pol. Sc. 106—Amer. State and Local Government | 3 | Bus. 146—Shorthand | 4 |
| Bus. 145—Shorthand | 4 | Electives in Social Science, Literature, or Language | 3-5 |
| Electives | 0-2 | | |
| | 16-18 | | 16-18 |

**Fourth Year**

| *First Semester* | *Hrs.* | *Second Semester* | *Hrs.* |
|---|---|---|---|
| Jour. 230—Editorial Writing and Policy | 3 | Jour. 108—Community Newspaper | 2 |
| Jour. 221—Critical Writing | 2 | Jour. 128—Adv. Reporting | 3 |
| Jour. 113—Principles of Advertising | 3 | Jour. 231—Social Responsibility of Journalism | 3 |
| Phil. 104—Intro. to Philosophy | 3 | Jour. 215—High School Journalism and Student Publications | 2* |
| Eng. 142—Shakespeare | 3 | Second field of concentration | 8-10 |
| Second field of concentration | 2-4 | | |
| | 16-18 | | 16-18 |

## GRADUATE STUDY

Although at the present time the School of Journalism is devoting its instructional facilities chiefly to professional curricula that lead to the degree of Bachelor of Science in Journalism, it frequently provides a graduate minor for students taking the master's degree in a field of specialization related to journalism.

## COURSES OF INSTRUCTION

Professor REED and Assistant Professors BELL and SORELLE

**1A. Introduction to United States Journalism.** II. 1 Hr. PR: English 1 with a grade of C or higher. Required of pre-journalism freshmen and and open to others. Staff

**1. Newspaper Reporting.** I, II. 3 Hrs. Two lectures and three laboratory hours. Students are required to know how to use typewriter or to acquire such knowledge during the first half of the semester. PR: English 1 and 2, with a final mark of C or higher in each. Miss Sorelle

*Required only of majors contemplating high-school teaching and the supervision of high-school publications.

2. **Newspaper Reporting.** I, II. 3 Hrs. Two lectures and three laboratory hours. Continuation of Journalism 1, which is prerequisite. Miss Sorelle

103. **Copy Editing.** I. 3 Hrs. PR: Journalism 1 and 2 or consent of instructor. Mr. Bell

104. **Copy Editing.** II. 3 Hrs. PR: Journalism 103 or consent of instructor. Mr. Bell

105. **Applied Newspaper Management.** I. 2 Hrs. One lecture and two laboratory hours. Journalism 1 and 2 or consent of instructor. Mr. Bell

106. **Applied Newspaper Management.** II. 2 Hrs. One lecture and two laboratory hours. PR: Journalism 1, 2, and 105 or consent of instructor. Mr. Bell

108. **The Community Newspaper.** II. 2 Hrs. PR: Journalism 1 and 2 or consent of instructor. Mr. Bell

110. **Newspaper Typography.** I. 2 Hrs. PR: Journalism 1 and 2 or consent of instructor. Mr. Bell

112. **Publicity, Propaganda, and the Public Mind.** II. 2 Hrs. Miss Sorelle

113. **Principles of Advertising.** I. 3 Hrs. Mr. Bell

114. **Newspaper Advertising.** II. 2 Hrs. One lecture and two laboratory hours. PR: Journalism 113 or consent of instructor. Mr. Bell

120. **News Photography.** I. 2 Hrs. PR: Journalism 1 and 2 or consent of instructor. Miss Sorelle

122. **Radio News-and-Feature Techniques.** I. 2 Hrs. One lecture and two laboratory hours. PR: Journalism 1 and 2 or consent of instructor. Miss Sorelle

123. **Radio News-and-Feature Techniques.** II. 2 Hrs. One lecture and two laboratory hours. PR: Journalism 1 and 2 and Journalism 122 or consent of instructor. Miss Sorelle

127. **History of American Journalism.** I. 3 Hrs. Miss Sorelle

128. **Advanced Reporting.** II. 3 Hrs. For seniors in journalism. Miss Sorelle

210. **Law of the Press.** II. 2 Hrs. For seniors and graduates. Miss Sorelle

215. **High-school Journalism and Student Publications.** II. 2 Hrs. Mr. Bell

220. **Newspaper and Magazine Article Writing.** II. 3 Hrs. For juniors, seniors, and graduates. Mr. Reed

221. **Journalistic Critical Writing.** I. 2 Hrs. For seniors and graduates. Mr. Reed

230. **Editorial Writing and Policy.** I. 3 Hrs. For seniors and graduates. Mr. Reed

231. **Social Responsibility of Journalism.** II. 3 Hrs. For seniors and graduates. Mr. Reed

# The College of Law

## HISTORY AND ORGANIZATION

The College of Law, established in 1878, is the oldest professional school in the University.

In 1897 the course of study was increased from one year to two years. Since 1912 the degree of Bachelor of Laws has been conferred only upon the satisfactory completion of three years of law-school work. From 1913 to 1924 the requirement for admission was one year of college work; from 1924 to 1931 the requirement was two years. Since 1931 the minimum pre-law requirement for the degree has been three years of work of collegiate grade in an institution of approved standing.

In 1914 the College of Law was admitted to membership in the Association of American Law Schools, which is an organization of leading schools for the purpose of maintaining high standards in legal education. The College of Law is on the list of schools approved by the American Bar Association.

## THE PROGRAM OF INSTRUCTION[1]

It is the primary aim of the Law School to give the student an adequate preparation for the practice of law. This involves not merely imparting a knowledge of the legal rules and other materials which courts employ, but also, what is equally important, a training in the technique of legal thinking. The work of the student is based chiefly upon the study and discussion of decided cases and statutes, with collateral reading of textbooks and periodicals, elucidated by free discussion in the class. Special emphasis is given to those West Virginia cases and statutes which differ from the general law. Within limits, the school also seeks to inculcate an appreciation of the place of law in the ordering of society and to consider the problem of how law may more effectively adjust human relations.

The following program of instruction is designed with these ends in view. The work of the first year is prescribed. All courses other than first-year courses are elective. Neither fewer than 13 nor more than 16 hours may be carried without the consent of the Committee on Scholarship.

## FIRST-YEAR COURSES

**Agency.** 3 Hrs.
Three hours a week in the second semester. Mechem, Cases on Agency (2d ed. by Seavey). Mr. Hardman

**Common Law Remedies.** 2 Hrs.
Two hours a week in the first semester. Sunderland, Cases on Common Law Pleading (2d ed.). Mr. Carlin

**Contracts.** 6 Hrs.
Six hours a week in the first semester. Williston, Cases on Contracts (3d ed.). Mr. Donley

**Criminal Law.** 3 Hrs.
Three hours a week in the second semester. Harno, Cases on Criminal Law and Procedure. Mr. Dickinson

[1]The program of courses as given here is subject to change.

**Equity I.** 3 Hrs.
Three hours a week in the second semester. Walsh, Cases on Equity.

**Personal Property.** 2 Hrs.
Two hours a week in the second semester. Bigelow, Cases on Personal Property (3d ed.). Mr. Carlin

**Real Property I.** 4 Hrs.
Four hours a week in the first semester. Aigler, Cases on Titles (3d ed.). Mr. Carlin

**Torts.** 5 Hrs.
Five hours a week in the second semester. Bohlen, Cases on Torts (4th ed. by Harper). Mr. Dickinson

## COURSES OPEN TO SECOND-YEAR AND THIRD-YEAR STUDENTS

**Administration of Insolvent Estates.** 2 Hrs.
Two hours a week in the first semester. Casebook to be announced.

**Common Law Pleading** (including Drafting of Pleadings). 4 Hrs.
Four hours a week in the second semester. Sunderland, Cases on Common Law Pleading (2 ed.). Mr. Carlin

**Constitutional Law.** 4 Hrs.
Four hours a week in the second semester. Maurer, Cases on Constitutional Law. Mr. Colson

**Damages.** 2 Hrs.
Two hours a week in the first semester. McCormick, Cases on Damages.

**Equity II.** 2 Hrs.
Two hours a week in the second semester. Walsh, Cases on Equity. Mr. Donley

**Insurance.** 2 Hrs.
Two hours a week in the first semester. Vance, Cases on Insurance (3d ed.). Mr. Colson

**Legal Ethics.** 1 Hr.
One hour a week in the first semester. Hicks, Organization and Ethics of the Bench and Bar. Mr. Carlin

**Negotiable Instruments.** 3 Hrs.
Three hours a week in the first semester. Smith and Moore, Cases on Bills and Notes (3d ed.). Mr. Dickinson

**Persons.** 2 Hrs.
Two hours a week in the first semester. Madden and Compton, Cases on Domestic Relations. Mr. Colson

**Public Utilities.** 4 Hrs.
Four hours a week in the second semester. Robinson, Cases on Public Utilities (2d ed.). Mr. Hardman

**Quasi Contracts.** 2 Hrs.
Two hours a week in the second semester. Patterson, Cases on Contracts II (Vol. 2). Mr. Donley

**Real Property II.** 2 Hrs.
Two hours a week in the second semester. Jacobs, Cases on Landlord and Tenant (2d ed.). Mr. Carlin

**Real Property III** (including Wills and Administration). 4 Hrs.
Four hours a week in the second semester. Leach, Cases on Future Interests, and Mechem and Atkinson, Cases on Wills and Administration.

**Sales of Personal Property.** 3 Hrs.
Three hours a week in the first semester. Woodward, Cases on Sales (3d ed.).

**Trusts.** 4 Hrs.
Four hours a week in the second semester. Scott, Cases on Trusts (3d ed.). Mr. Colson

**Use of Law Books.** 1 Hr.
One hour a week in the first semester. Law Books and Their Use. Mr. Dickinson

**Workmen's Compensation.** 1 Hr.
One hour a week in the second semester. Selected West Virginia materials.

## COURSES OPEN ONLY TO THIRD-YEAR STUDENTS

**Administrative Law.** 3 Hrs.
Three hours a week in the second semester. Gellhorn, Cases on Administrative Law.

**Conflict of Laws.** 4 Hrs.
Four hours a week in the first semester. Beale, Cases on Conflict of Laws (3d ed.). Mr. Dickinson

**Corporations.** 4 Hrs.
Four hours a week in the first semester. Ballantine and Lattin, Cases on Corporations.

**Drafting Legal Instruments.** 1 Hr.
One hour a week in the first semester. Mr. Carlin

**Equity Pleading and Practice.** 2 Hrs.
Two hours a week in the first semester. Prerequisite: Common Law Pleading. Clephane, Equity Pleading and Practice, and selected cases and statutes. Omitted in 1945-46. Mr. Carlin

**Evidence.** 4 Hrs.
Four hours a week in the first semester. Morgan and Maguire, Cases on Evidence. (2d ed.). Mr. Hardman

**Practice and Procedure.** 4 Hrs.
Four hours a week in the first semester. Prerequisite: Common Law Pleading. Selected cases, statutes, and lectures. Omitted in 1945-46. Mr. Carlin

**Practice Court.** 2 Hrs.
Two hours a week in the second semester. Prerequisite: Common Law Pleading and Practice and Procedure. Omitted in 1945-46. Mr. Carlin

**Taxation.** 4 Hrs.
Four hours a week in the first semester. Casebook to be announced. Mr. Colson

## THE PRACTICE COURT

Supplementing the procedural courses and, in particular, the course in Practice and Procedure, the College of Law conducts a Practice Court under the instruction and direct supervision of a member of the faculty. Its primary

purpose is to give the students practical experience in coordinating and applying, in an actually litigated case, the legal knowledge which they have acquired in their classroom courses. The cases are tried exactly as they would be tried in an ordinary court. The first session is presided over by Professor Carlin, who has charge of the course in Practice Court, and the other sessions are presided over by a judge of the Supreme Court of Appeals or of one of the circuit courts of West Virginia.

The court exercises original jurisdiction in law and equity, and appellate jurisdiction in appeals from inferior tribunals. Statements of facts are furnished, such as would be related to a lawyer in active practice by his client. Each student must determine whether or not upon such facts the particular case in hand is one of common law or equity. He must then frame his pleadings, serve his summons or notice, and answer his adversary's pleadings until issue is joined in legal manner. Thereupon the case is brought on for trial or hearing in strict accordance with legal procedure, witnesses are examined and cross-examined, and the case is conducted through all the various stages of trial or hearing down to and including the judgment, decree, or sentence; after which, should the case be appealed, it must be carried through the Supreme Court, involving the preparation of the record on appeal, briefs of counsel, and argument.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF LAWS

The degree of Bachelor of Laws is conferred upon those who have met the requirements for entrance to the College of Law as candidates for this degree and who have satisfactorily passed examinations in courses aggregating eighty-one credit hours, distributed over three years' residence, and who have obtained an average grade of C[1] as hereinafter provided. Except with the permission of the Scholarship Committee these eighty-one hours must be taken in no more than six semesters or the equivalent thereof in summer school, and the last twenty-seven hours of work must be taken in the College of Law of West Virginia University. When a student, because of admission with advanced standing from another law school, needs less than eighty-one hours in order to satisfy the requirements for this degree, the C average required for graduation is computed on the basis of work taken in the College of Law. No student may receive the degree of Bachelor of Laws without at least three semesters in residence at the College of Law and the successful completion of courses aggregating at least one-half of the total number of hours required for graduation.

## GENERAL REGULATIONS

Written examinations are held at the end of each semester in all courses. Reports of students' grades are made at the end of each semester.

All courses extend either through the entire year or through one semester. No credit will be given for less than an entire course except by special order of the Committee on Scholarship. A grade given at the end of the first semester in a course extending throughout the year does not carry credit, but such first-semester grade may be considered in determining the final grade.

[1]The C average requirement does not apply to students who entered before the fall of 1939. For rules governing such students see the Law School Bulletin for 1938-39.

Final grades are based primarily on the written examinations. But in determining a grade the instructor may give such weight as he deems best to daily recitations or other classroom assignments. He may refuse examination to any student because of poor attendance.

No student who absents himself from any regular examination without being excused therefrom by the faculty of the College of Law will receive credit unless he successfully repeats the course. If absence from a final examination is permitted by the faculty, the student's grade in that course will be withheld until he has passed the next regular examination in the course. Application for leave to be absent from a regular examination must be made before the hour at which such examination closes.

To be graduated, a student must obtain an average grade of C, computed on the basis of all work taken during the first three years or on the basis of the first 81 hours, if the student has not taken the required 81 hours during the first three years.[2]

A student who at the end of the third or any subsequent semester has a grade of D or less in more than half his work, computed on the basis of the total number of hours which he has taken, shall be excluded permanently from the College of Law.[2]

A student who fails to pass more than half his work, computed on the basis of hours carried during any semester, shall be suspended. Upon application to the Scholarship Committee, a student so suspended, unless excluded under the preceding rule, may be readmitted, but with the understanding that if he again fails to pass half his work he shall be excluded permanently from the Law School.

Unless previously excluded on account of poor scholarship, a student who has received a grade of D in any course is privileged to take the next regular examination in that course for the purpose of raising his grade. No special examinations will be given under this rule.

### Students in Other Colleges

Students of at least senior standing in other colleges of the University may be permitted to take work in the College of Law subject to the regulations of the colleges where they are registered and of the College of Law, but conditioned in each case upon the consent of the instructor giving the course which such students desire to take.

## ADMISSION TO THE BAR

Under the provisions of the West Virginia Code 1931, ch. 30, art. 2, sec. 1, those who receive the degree of Bachelor of Laws from West Virginia University may be admitted to the bar without further examination.

All persons seeking admission to the West Virginia bar, except those who hold the degree of Bachelor of Laws from West Virginia University, are required to pass the state bar examination.

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[2]This rule does not apply to students who entered before September, 1939. For rules governing such students see the Law School Bulletin for 1938-39.

Information as to the bar examinations and as to other matters relating to admission to the bar may be obtained upon inquiry directed to the Secretary, State Board of Law Examiners, Charleston, West Virginia.

### THE WEST VIRGINIA LAW QUARTERLY

The West Virginia Law Quarterly is published in December, February, April, and June by the College of Law. It is the official publication of the West Virginia Bar Association.

The editors of the Student Note and Recent Case Department of the Law Quarterly are members of the second- and third-year classes, chosen each year from those students who made the highest grades in the preceding year. This department affords to students an opportunity to do research work of a practical nature.

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## The School of Medicine

### INSTRUCTION IN MEDICINE

Regular instruction in subjects preparatory to the study of medicine was first given in West Virginia University in 1871, the chair of anatomy, physiology, and hygiene having been established in that year. A curriculum covering the first two years of a standard four-year medical course was provided in 1902, and the work was placed in charge of the College of Medicine with a resident faculty of six men. In 1912 the College of Medicine became the School of Medicine. In reorganizing the work in medicine the Board of Regents retained the general character of the curriculum previously offered but provided for a larger faculty, more laboratories, and more adequate equipment.

The School of Medicine is listed as a Recognized School of Basic Medical Sciences by the Council on Medical Education and Hospitals of the American Medical Association. It is also a member of the Association of American Medical Colleges.

### AGREEMENT WITH MEDICAL COLLEGE OF VIRGINIA

Only the first two years of medicine are given at West Virginia University. There has been made an agreement with the Medical College of Virginia at Richmond for the transfer of as many as twenty students, residents of West Virginia, who have completed the first two years at West Virginia University. At the Medical College of Virginia, these students will pay the same tuition as paid by residents of the State of Virginia. Upon graduation, diplomas will be issued jointly by the two schools. Other students in the class may, as in the past, transfer to various medical schools for the completion of their work.

## THE STANDING COMMITTEES

EXECUTIVE: E. J. VAN LIERE *(chairman)*, G. S. DODDS, F. R. WHITTLESEY, and C. B. PRIDE.

ENTRANCE AND SCHOLARSHIP: G. S. DODDS *(chairman)*, S. B. CHANDLER, C. C. FENTON, and P. L. MACLACHLAN.

LIBRARY: S. B. CHANDLER *(chairman)*, G. S. DODDS, J. C. STICKNEY, E. DEANGELIS, and P. L. MACLACHLAN.

RESEARCH: E. J. VAN LIERE *(chairman)*, R. S. SPRAY, D. W. NORTHUP, D. MARSH, and P. L. MACLACHLAN.

SEMINARS: S. B. CHANDLER *(chairman)*, E. DEANGELIS, J. C. STICKNEY, C. C. FENTON, and E. J. VAN LIERE.

CLINICAL AND SPECIAL FACILITIES: J. J. LAWLESS *(chairman)*, C. B. PRIDE, C. C. FENTON, G. R. MAXWELL, E. DEANGELIS, and F. R. WHITTLESEY.

CURRICULUM: G. S. DODDS *(chairman)*, E. DEANGELIS, P. L. MACLACHLAN, and E. J. VAN LIERE.

STUDENT LOANS AND SCHOLARSHIPS: E. J. VAN LIERE *(chairman)*, G. S. DODDS, P. L. MACLACHLAN, and J. C. STICKNEY.

MEDICAL TECHNOLOGY: E. J. VAN LIERE *(chaiman)*, G. S. DODDS, C. C. FENTON, DAVID SALKIN, and MARY J. HENN.

### The John Nathan Simpson Lectureship

In 1933 the West Virginia chapter of the Phi Beta Pi medical fraternity instituted the John Nathan Simpson Lectureship, honoring Dr. John N. Simpson, now Dean Emeritus of the School of Medicine, giving an annual lecture by someone distinguished in medical research or practice.

## REQUIREMENTS FOR DEGREES

The School of Medicine gives no degrees in medicine, inasmuch as only the first two years of medicine are given. It, however, cooperates with the College of Arts and Sciences in granting the Bachelor of Science degree, upon the completion of the two years of medical work, to those students who comply with certain requirements of the College of Arts and Sciences.

For a suggested curriculum for pre-medical students, see above, p. 120.

### Curriculum in Medical Technology

The School of Medicine announces the establishment of a curriculum in Medical Technology leading to the degree of Bachelor of Science (Medical Technology). During the first two years students are registered in the College of Arts and Sciences; during the last two years in the School of Medicine. For further details see page 126.

## The Medical Curriculum 1944-45

The following courses and hours are required of all medical students. The length of a term is 12 weeks including the final-examination periods.

### The Schedule of Courses

| | Hrs. per week | | | Hrs. per term | | | Semester Hours Credit |
|---|---|---|---|---|---|---|---|
| | Lect. | Lab. | Total | Lect. | Lab. | Total | |
| **First Year—First Term. Autumn, 1944** | | | | | | | |
| Gross Anatomy 200 | 3 | 9 | 12 | 36 | 72 | 144 | 4 |
| Histology 201 | 4 | 10 | 14 | 48 | 120 | 168 | 5 |
| Biochemistry 201 | 3 | 6 | 9 | 36 | 72 | 108 | * |
| **First Year—Second Term. Winter, 1945** | | | | | | | |
| Gross Antomy 201 | 2 | 8 | 10 | 24 | 96 | 120 | 3 |
| Embryology 202 | 3 | 5 | 8 | 36 | 60 | 96 | 3 |
| Biochemistry 201 | 3 | 6 | 9 | 36 | 72 | 108 | 6 |
| Medical Bact. 202 | 2 | 6 | 8 | 24 | 72 | 96 | * |
| **First Year—Third Term. Spring, 1945** | | | | | | | |
| Gross Anatomy 202 | 3 | 8 | 11 | 36 | 96 | 132 | 4 |
| Neuro-anatomy 203 | 3 | 5 | 8 | 36 | 60 | 96 | 3 |
| Physiology 202 | 3 | 5 | 8 | 36 | 60 | 96 | 3 |
| Medical Bact. 202 | 1 | 6 | 7 | 12 | 72 | 84 | 5 |
| **Second Year—First Term. Autumn, 1944** | | | | | | | |
| Physiology 203 | 5 | 6 | 11 | 60 | 72 | 132 | 5 |
| General Pathology 201 | 2 | 5 | 7 | 24 | 60 | 84 | 3 |
| Special Pathology 202 | 2 | 6 | 8 | 24 | 72 | 96 | 3 |
| Pharmacology 201 | 2 | 0 | 2 | 24 | 0 | 24 | 1 |
| Public Hygiene 203 | 3 | 0 | 3 | 36 | 0 | 36 | 2 |
| Physical Diagnosis 201 | 0 | 2 | 2 | 0 | 24 | 24 | * |
| **Second Year—Second Term. Winter, 1945** | | | | | | | |
| Applied Anatomy 204 | 2 | 4 | 6 | 24 | 48 | 72 | 2 |
| Physiology 204 | 2 | 3 | 5 | 24 | 36 | 60 | 2 |
| Tumor Pathology 203 | 2 | 3 | 5 | 24 | 36 | 60 | * |
| Pharmacology 202 | 4 | 3 | 7 | 48 | 36 | 84 | * |
| Obstetrics 201 | 3 | 0 | 3 | 36 | 0 | 36 | 2 |
| History of Medicine 204 | 1 | 0 | 1 | 12 | 0 | 12 | 0 |
| Physical Diagnosis 201 | 1 | 2 | 3 | 12 | 24 | 36 | * |
| Medicine 202 | 1 | 1 | 2 | 12 | 12 | 24 | * |
| Principles of Surgery 201 | 2 | 0 | 2 | 24 | 0 | 24 | * |
| Psychobiology 203 | 1 | 0 | 1 | 12 | 0 | 12 | * |
| **Second Year—Third Term. Spring, 1945** | | | | | | | |
| Tumor Pathology 203 | 1 | 4 | 5 | 12 | 48 | 60 | 3 |
| Pharmacology 202 | 3 | 3 | 6 | 36 | 36 | 72 | 6 |
| Clinical Pathology 204 | 3 | 8 | 11 | 36 | 96 | 132 | 3 |
| Physical Diagnosis 201 | 2 | 2 | 4 | 24 | 24 | 48 | 3 |
| Medicine 202 | 1 | 3 | 4 | 12 | 36 | 48 | 2 |
| Principles of Surgery 201 | 1 | 2 | 3 | 12 | 24 | 36 | 3 |
| Psychobiology 203 | 1 | 0 | 1 | 12 | 0 | 12 | 1 |

*Credit at end of course.

## War Emergency Notice

The School of Medicine has been operating on an accelerated schedule since June 1, 1942, in order that the University may play its part in the more rapid training of the physicians needed in the present national emergency. Under this schedule a class has been admitted every nine months, and the long summer vacation has been eliminated. The academic year is divided into three terms instead of two semesters. This plan allows a student to complete the two years' work within 18 calendar months after his entrance. Beginning with 1945 the plan will be modified to the extent that a class is to be admitted each year, but otherwise the accelerated schedule will continue.

The next entering class will register on September 24, 1945. The entrance requirements for civilians include the work of a standard four-year high-school course or its equivalent and three years' work, including certain specified subjects, in an acceptable college. Fees are $85 per term for residents of West Virginia and $135 per term for non-residents.

# COURSES OF INSTRUCTION

NOTE—Courses marked "[1]" are required of first-year students; those marked "[2]" are required of second-year students.

Under the accelerated program of the School of Medicine the work of the academic year is divided into three terms instead of two semesters as it is in the rest of the University. The credits are, however, reported in semester hours in conformity with the general University practice.

In addition to the required courses there are listed some elective courses for the benefit of other University students who may need them. These courses are still described under the semester plan. They are given only when, in the opinion of the department concerned and of the Dean, it is considered advisable. If there should arise a demand for any of these courses, the Medical School will try to meet the need, but the schedule will be contingent upon the extent to which staff members are occupied with the required medical courses.

## Gross Anatomy and Neuro-anatomy

Professor CHANDLER; Assistant Professors GODWIN[2] and WILLIAMS; Instructor DRAGER

**200.**[1] **Gross Anatomy.** 1st term. 4 Hrs. Lecture, 3 hours per week; laboratory, 9 hours.

**201.**[1] **Gross Anatomy.** 2nd term. 3 Hrs. Continuation of Anatomy 200. Lecture, 2 hours per week; laboratory, 8 hours.

**202.**[1] **Gross Anatomy.** 3rd term. 4 Hrs. Continuation of Anatomy 201. Lecture, 3 hours per week; laboratory, 8 hours.

**203.**[1] **Neuro-anatomy.** 3rd term. 3 Hrs. Lecture, 3 hours per week; laboratory, 5 hours.

**204.**[2] **Applied Anatomy.** 2nd term. 2 Hrs. Lecture, 2 hours per week; laboratory, 4 hours.

[2]Resigned September, 1944.

**211. Anatomy of the Sympathetic Nervous System.** I or II. 2-5 Hrs. Hours to be arranged. Open to properly qualified students.

**212. Applied Anatomy of the Pelvis and Perineum.** I or II. 2-5 Hrs. Hours to be arranged. Open to properly qualified students.

**381. Advanced Anatomy.** 2-5 Hrs. Hours to be arranged. Open to properly qualified students.

## Histology and Embryology

Professor DODDS; Assistant Professors GODWIN[2] and WILLIAMS

**201.[1] Histology.** 1st term. 5 Hrs. Lecture, 4 hours per week; laboratory, 10 hours.

**202.[1] Embryology.** 2nd term. 3 Hrs. Lecture, 3 hours per week; laboratory, 5 hours.

**211. The Histology and Development of the Skeletal System.** I or II. 2-5 Hrs. Hours to be arranged. Open to properly qualified students. Laboratory work and study of current literature.

**213. Advanced Embryology.** I or II. 2-5 Hrs. Topics to be chosen to meet special needs of student. Hours to be arranged. Open to properly qualified students.

**381. Research in Microscopic or Developmental Anatomy.** I or II or Yr. 2-5 Hrs. Hours to be arranged. Open to properly qualified students.

## Biochemistry

Professor MACLACHLAN

**139 or 239. General Biochemistry.** II. 4 Hrs. Fundamental biochemistry of plants and animals with special reference to man. PR: Inorganic and organic chemistry. Quantitative analysis desirable. Lecture, 3 hours per week; laboratory, 5 hours. Graduate students required to do one hour additional work per week for 4 hours' credit.

**201.[1] Biochemistry.** 1st and 2nd terms. 6 Hrs. Lecture, 3 hours per week; laboratory, 6 hours. Credit at end of course.

**211. Advanced Biochemistry.** I or II. 2-5 Hrs. With special emphasis on biochemical methods. Hours to be arranged. Open to properly qualified students.

**381. Research in Biochemsitry.** I or II or Yr. 2-5 Hrs. Open to properly qualified students.

## Bacteriology and Public Hygiene

Professor SPRAY; Instructors HENN and LEWIS[1]

**101. Pathogenic Bacteriology.** I. 5 Hrs. Required of pharmacy students. Open to other qualified students. Lecture, 2 hours per week; laboratory, 8 hours.

**202.[1] Medical Bacteriology.** 2nd and 3rd terms. 5 Hrs. 2nd term: Lecture, 2 hours per week; laboratory, 6 hours. 3rd term: Lecture, 1 hour per week; laboratory, 6 hours. Credit at end of course.

**203.[2] Public Hygiene.** 1st term. 2 Hrs. Lecture, 3 hours per week.

[1]On leave of absence for military service.

**211. Advanced Bacteriology.** I or II. 2-5 Hrs. Hours to be arranged. Open to graduates and advanced students.

**381. Research in Bacteriology.** I or II. 2-5 Hrs. PR: Bacteriology 202 or equivalent.

## Physiology

Professor VAN LIERE; Associate Professor NORTHUP; Instructor STICKNEY

**101. Elementary Physiology.** II. 4 Hrs. For pharmacy students. Lecture, 3 hours per week; laboratory, 3 hours.

**202.[1] Physiology.** 3rd term. 3 Hrs. Physiology of muscle and nervous system. Lecture, 3 hours per week; laboratory, 5 hours.

**203.[2] Physiology.** 1st term. 5 Hrs. Physiology of circulation, respiration, digestion, metabolism, secretion, endocrines, and special senses. Lecture, 5 hours per week; laboratory, 6 hours.

**204.[2] Physiology.** 2nd term. 2 Hrs. Continuation of Physiology 203. Lecture, 2 hours per week; laboratory, 3 hours.

**211. Seminar in Physiology.** Yr. No credit.

**212. Advanced Physiology of Circulation and Respiration.** Yr. 2-5 Hrs. Hours to be arranged.

**213. Physiology of Gastro-intestinal System.** II. 2-5 Hrs. Hours to be arranged.

**214. Nervous Physiology and Special Senses.** Yr. 2-5 Hrs. Hours to be arranged.

**215. Aviation Physiology.** 1 Hr.

**381. Physiology.** I or II. 2-5 Hrs. Research in Physiology leading to the Master of Science degree.

## Pathology

Professor FENTON; Associate Professor DEANGELIS

**201.[3] General Pathology.** 1st term. 3 Hrs. Study of general pathology, both gross and microscopic, with demonstrations. Lecture, 2 hours per week; laboratory, 5 hours.

**202.[2] Special Pathology.** 1st term. 3 Hrs. A study of special diseases with gross and microscopic specimens from selected autopsies. Lecture, 2 hours per week; laboratory, 6 hours.

**203.[2] Pathology of Infectious Granulomas and Tumors.** 2nd and 3rd terms. 3 Hrs. 2nd term: Lecture, 2 hours per week; laboratory, 3 hours. 3rd term: Lecture, 1 hour per week; laboratory, 4 hours. Credit at end of course.

**204.[2] Clinical Pathology.** 3rd term. 3 Hrs. A laboratory course in blood, gastric contents, urine, etc., and their pathological and clinical significance. Lecture, 3 hours per week; laboratory, 8 hours.

**211. Pathology (Advanced).** I or II. 3 Hrs. Microscopic and gross specimens from selected autopsies. PR: Pathology 201.

**381. Experimental Pathology.** I or II. 2-5 Hrs. Hours to be arranged. Open to properly qualified students.

## Pharmacology

Associate Professor MARSH; Instructor ROSS; Lecturers TUCKER and HAYMAN

201.[2] **Introductory Pharmacology.** 1st term. 1 Hr. Lecture, 2 hours per week. Sources and types of drugs; incompatibilities; weights and measures; narcotic laws; and prescription writing. Given by Dean Hayman.

202.[2] **Medical Pharmacology and Pharmacodynamics.** 2nd and 3rd terms. 6 Hrs. 2nd term: Lecture, 4 hours per week; laboratory, 3 hours. 3rd term: Lecture, 3 hours per week; laboratory, 3 hours. Credit at end of course.

211. **Biochemorphology.** II. 2 Hrs. Lecture, 2 hours per week. Relation between chemical constitution and physiological action of medical agents. PR: Pharmacology 202, or Chemistry 238 or 277.

212. **Bioassay and Comparative Pharmacology.** I and II. 3 Hrs. Lecture and demonstrations, 2 hours per week; laboratory, 3 hours. Cellular pharmacodynamics and comparative mammalian pharmacology. PR: Pharmacology 202; or Chemistry 238 or 277 and Histology 201; or Pharmacy 110.

213. **Introductory Therapeutics.** II. 1 Hr. Lecture, 1 hour per week. PR: Pharmacology 202.

214. **Anesthesiology.** II. 3 Hrs. Lecture, 2 hours per week; laboratory, 3 hours. PR: Physiology 202.

381. **Research in Pharmacology.** I and II. 2-5 Hrs. Hours to be arranged. PR: Graduate status in physiology, chemistry, or agriculture.

## Medicine

Associate Professors LAWLESS and DEANGELIS; Assistant Professors MAXWELL, WHITTLESEY, SALKIN, and SLEETH[1]; Instructors JOHNSON, STARKEY, IRELAND, TEITELBAUM, and BUTLER

201.[2] **Physical Diagnosis.** Yr. 3 Hrs. 1st term: Medical clinic—demonstration of clinical cases, 2 hours per week. 2nd term: Lecture, 1 hour per week; laboratory, 2 hours. 3rd term: Lecture, 2 hours per week; practical work with patients, 2 hours. Hospital clerkship at Hopemont Sanitarium, 1 week. Credit at end of course.

202.[2] **Introductory Medicine.** 2nd and 3rd terms. 2 Hrs. 2nd term: Lecture, 1 hour per week; demonstration of clinical cases, 1 hour. 3rd term: Lecture, 1 hour per week; demonstration of clinical cases, 3 hours. Medical clerkship at Hopemont Sanitarium, 1 week. Credit at end of course.

203.[2] **Psychobiology.** 2nd and 3rd terms. 1 Hr. Introduction to the study of human personality, normal and abnormal. Lecture, 1 hour per week. Credit at end of course.

## Introductory Surgery

Associate Professor PRIDE

201.[2] **Principles of Surgery.** 2nd and 3rd terms. 3 Hrs. 2nd term: Lecture, 2 hours per week. 3rd term: Lecture, 1 hour per week; demonstrations of clinical cases and operative technique, 2 hours. Credit at end of course.

[1]On leave of absence for military service.

### Obstetrics

Professor VAN LIERE

**201.**[3] **Obstetrics.** 2nd term. 2 Hrs. An introductory course in obstetrics. Lecture, 3 hours per week.

### History of Medicine

Professor CHANDLER

**204.**[2] 2nd term. No credit. A brief history of the development of the science and art of medicine. Lecture, 1 hour per week.

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## The Division of Military Science and Tactics

Professor GRIFFIN; Assistant Professors BETTGE, WALKER, and TERRY; Instructors CAULFIELD, KAST, and ORTMANN

#### Basic—First Year

1. **Military Science.** I. 2 Hrs.
   Leadership, rifle marksmanship, sanitation and first aid, organization of the Army, obligations of citizenship.

2. **Military Science.** II. 2 Hrs.
   Military history and policy, map reading, organization of Infantry, leadership.

#### Basic—Second Year

3. **Military Science.** I. 2 Hrs.
   Leadership, scouting and patrolling, automatic rifle, characteristics of weapons.

4. **Military Science.** II. 2 Hrs.
   Musketry, combat principles for the squad, leadership.

All courses offered by the Division of Military Science and Tactics are subject to change in accordance with War Department instructions.

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## The School of Music

### BUILDINGS AND EQUIPMENT

The School of Music is situated in two buildings. One contains two studios, three studio-classrooms, and six practice rooms, and the other contains the office, two studios, four practice rooms, one classroom, and the locker-room.

The equipment consists of 20 upright pianos and 13 grand pianos, an electric organ, a two-manual practice organ, and a three-manual pipe organ, modernized to conform to all requirements of the American Guild of Organists. The pipe organ is situated in Reynolds Hall, and the others in the School of Music.

## STUDENT CONCERTS

Students giving satisfactory performances appear in recital. The object is to afford opportunity for the students to apply in public the proficiency that has been developed in the studio.

All music students are required to attend the regular student recitals, to take part in them whenever so assigned, and to attend all concerts given under the auspices of the University. They are expected to identify themselves with the various organizations of the school and are required to enter any to which they are assigned by the Director.

Students of the School of Music are not allowed to take part in public programs or to join musical organizations without the consent of their respective instructors and of the Director of the school.

## THE STANDING COMMITTEES

SCHOLARSHIP: Messrs. CUTHBERT and WOOD and Miss HINKEL.

CONCERTS AND RECITALS: MESSRS. CUTHBERT, WEISER, WOOD, and McGREGOR.

## REQUIREMENTS FOR THE DEGREE

The School of Music offers a four-year curriculum in voice, violin, piano, pipe-organ, theory and composition, and public-school music, leading to the degree of Bachelor of Music (B. Mus.).

The Bachelor of Music degree is conferred upon any student who complies with the general regulations of the University concerning degrees, satisfies all entrance and departmental requirements, and completes one of the following curricula in music (136 hours) with an average of one honor point per credit-hour:[1]

A. Piano, violin, pipe organ, or voice

B. Theory and composition

C. Public-school music.

Before graduation, all candidates for the degree Bachelor of Music must demonstrate the required proficiency in playing at sight piano accompaniments of moderate difficulty, and they must have performed in a minimum of four Student Recitals. In addition, all candidates for the degree Bachelor of Music in Public School Music must show proficiency in Voice and in one Band or Orchestral Instrument.

[1]Honor points in excess of those earned for credit of 8 hours in Glee Club. Chorus, Orchestra, and Band will not be counted towards requirements for graduation.

## The Suggested Curriculum in Applied Music

*Leading to the Degree of Bachelor of Music in*

## PIANO, VIOLIN, OR PIPE ORGAN

### Freshman

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied Major | 4 | Applied Major | 4 |
| Applied Minor | 2 | Applied Minor | 2 |
| M. 1 | 4 | M. 2 | 4 |
| Glee, Cho., Bnd., or Orch. | 1 | Glee, Cho., Bnd., or Orch. | 1 |
| English 1 | 3 | English 2 | 3 |
| P. ed.[2] | 1 | P. ed.[2] | 1 |
| Fr., Ger., or Ital. | 3 | Fr. Ger., or Ital. | 3 |
| (W) | 18 | (W) | 18 |
| Mil. sc.(men)[1] | 1 | Mil. sc.(men)[1] | 1 |
| (M) | 19 | (M) | 19 |

### Sophomore

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied Major | 4 | Applied Major | 4 |
| Applied Minor | 2 | Applied Minor | 2 |
| M. 3 | 4 | M. 4 | 4 |
| M. 79 | 2 | M. 80 | 2 |
| Glee, Cho., Bnd., or Orch. | 1 | Glee, Cho., Bnd., or Orch. | 1 |
| English | 3 | English | 3 |
| P. ed. (W) | 1 | P. ed. (W) | 1 |
| (W) | 17 | (W) | 17 |
| Mil. sc.(men)[1] | 2 | Mil. sc.(men)[1] | 2 |
| (M) | 18 | (M) | 18 |

### Junior

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied Major | 4 | Applied Major | 4 |
| Applied Minor | 2 | Applied Minor | 2 |
| M. 107 | 2 | M. 108 | 2 |
| M. 109 | 2 | M. 110 | 2 |
| M. 153 | 1 | M. 154 | 1 |
| Music elec. | 2 | Music elec. | 2 |
| Glee, Cho., Bnd., or Orch. | 1 | Glee, Cho., Bnd., or Orch. | 1 |
| Acad. elec. | 3 | Acad. elec. | 3 |
| | 17 | | 17 |

### Senior

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied Major | 4 | Applied Major | 4 |
| Applied Minor | 2 | Applied Minor | 2 |
| M. 113 | 2 | M. 114 | 2 |
| M. 117 | 2 | M. 118 | 2 |
| M. 155 | 1 | M. 156 | 1 |
| M. 182 or 183 | 2 | M. 199 | 2 |
| M. 240 | 2 | M. 241 | 2 |
| M. 281 | 2 | | 15 |
| | 17 | | |

[1]Military science is required of all male students except those who at the time of matriculation are 23 years of age or have completed no less than 58 hours of work, and all who have credit for 4 hours of military science or 1 unit of entrance credit in military academy. Students must register for military science upon their entrance into the University and continue in the course until the full requirement has been met or until a regular exemption card is filed in the Registrar's office.

[2]Two hours of physical education for men, to be taken during the first year of residence, and four hours of physical education for women, to be taken during the first and second years in residence, are required for graduation of students presenting fewer than 58 semester hours, unless previous credit has been allowed.

## The Suggested Curriculum in Applied Music

*Leading to the Degree of Bachelor of Music in*

## VOICE

### Freshman

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Voice | 4 | Voice | 4 |
| Piano | 2 | Piano | 2 |
| M. 1 | 4 | M. 2 | 4 |
| Glee or Cho. | 1 | Glee or Cho. | 1 |
| English 1 | 3 | English 2 | 3 |
| P. ed.[2] | 1 | P. ed.[2] | 1 |
| Fr., Ger., or Ital. | 3 | Fr., Ger., or Ital. | 3 |
| (W) | 18 | (W) | 18 |
| Mil. sc. (men)[1] | 1 | Mil. sc. (men)[1] | 1 |
| (M) | 19 | (M) | 19 |

### Sophomore

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Voice | 4 | Voice | 4 |
| Piano | 2 | Piano | 2 |
| M. 3 | 4 | M. 4 | 4 |
| M. 79 | 2 | M. 80 | 2 |
| Glee or Cho. | 1 | Glee or Cho. | 1 |
| P. ed.[2] (W) | 1 | P. ed.[2] (W) | 1 |
| Fr., Ger., or Ital. | 3 | Fr., Ger., or Ital. | 3 |
| (W) | 17 | (W) | 17 |
| Mil. sc. (men)[1] | 2 | Mil. sc. (men)[1] | 2 |
| (M) | 18 | (M) | 18 |

### Junior

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Voice | 4 | Voice | 4 |
| Piano | 2 | Piano | 2 |
| M. 107 | 2 | M. 108 | 2 |
| M. 109 | 2 | M. 110 | 2 |
| M. 180 | 2 | English | 3 |
| English | 3 | Acad. elec. | 3 |
| Acad. elec. | 3 | Glee or Cho. | 1 |
| Glee or Cho. | 1 | | 17 |
| | 19 | | |

### Senior

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Voice | 4 | Voice | 4 |
| Piano | 2 | Piano | 2 |
| M. 113 | 2 | M. 114 | 2 |
| M. 117 | 2 | M. 118 | 2 |
| M. 182 | 2 | M. 183 | 2 |
| M. 240 | 2 | M. 241 | 2 |
| Glee or Cho. | 1 | M. 199 | 2 |
| | 15 | Glee or Cho. | 1 |
| | | | 17 |

[1]Military science is required of all male students except those who at the time of matriculation are 23 years of age or have completed no less than 58 hours of work, and all who have credit for 4 hours of military science or 1 unit of entrance credit in military academy. Students must register for military science upon their entrance into the University and continue in the course until the full requirement has been met or until a regular exemption card is filed in the Registrar's office.

[2]Two hours of physical education for men, to be taken during the first year of residence, and four hours of physical education for women, to be taken during the first and second years in residence, are required for graduation of students presenting fewer than 58 semester hours, unless previous credit has been allowed.

## The Suggested Curriculum in Theory and Composition

*Leading to the Degree of Bachelor of Music in*

## THEORY AND COMPOSITION*

### Freshman

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied | 4 | Applied | 4 |
| M. 1 | 4 | M. 2 | 4 |
| M. 79 | 2 | M. 80 | 2 |
| Glee or Cho. | 1 | Glee or Cho. | 1 |
| Orchestra | 1 | Orchestra | 1 |
| English 1 | 3 | English 2 | 3 |
| P. ed.[2] | 1 | P. ed.[2] | 1 |
| (W) | 16 | (W) | 16 |
| Mil. sc. (men)[1] | 1 | Mil. sc. (men)[1] | 1 |
| (M) | 17 | (M) | 17 |

### Sophomore

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied | 4 | Applied | 4 |
| M. 3 | 4 | M. 4 | 4 |
| M. 107 | 2 | M. 108 | 2 |
| Glee or Cho. | 1 | Glee or Cho. | 1 |
| Orchestra | 1 | Orchestra | 1 |
| English | 3 | English | 3 |
| Fr., Ger., or Ital. | 3 | Fr., Ger., or Ital | 3 |
| P. ed. (W)[2] | 1 | P. ed. (W)[2] | 1 |
| (W) | 19 | (W) | 19 |
| Mil. sc. (men)[1] | 2 | Mil. sc. (men)[1] | 2 |
| (M) | 20 | (M) | 20 |

### Junior

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied | 4 | Applied | 4 |
| M. 109 | 2 | M. 110 | 2 |
| M. 113 | 2 | M. 114 | 2 |
| M. 117 | 2 | M. 118 | 2 |
| Glee or Cho. or Band or M. 153 | 1 | Glee or Cho. or Band or M. 154 | 1 |
| Orchestra | 1 | Orchestra | 1 |
| Acad. elec. | 3 | Fr., Ger., or Ital. | 3 |
| Fr., Ger., or Ital. | 3 | Inst. Class | 1 |
| Inst. Class | 1 | | 16 |
| | 19 | | |

### Senior

| *First Sem.* | *Hrs* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied | 4 | Applied | 4 |
| M. 111 | 3 | M. 112 | 3 |
| M. 155 | 1 | M. 156 | 1 |
| M. 180 | 2 | M. 198 | 2 |
| M. 182 | 2 | M. 183 | 2 |
| M. 186 | 2 | M. 187 | 2 |
| M. 240 | 2 | M. 241 | 2 |
| Inst. Class | 1 | M. 281 | 2 |
| | 17 | | 18 |

*In order to be approved for candidacy in this field at the beginning of the Junior year, a student working towards the degree Bachelor of Music in Theory and Composition must have maintained at least an average of B in all Theory courses required in the Freshman and Sophomore years, and he must have attained and demonstrated the required proficiency in Piano.

[1]Military science is required of all male students except those who at the time of matriculation are 23 years of age or have completed no less than 58 hours of work, and all who have credit for 4 hours of military science or 1 unit of entrance credit in military academy. Students must register for military science upon their entrance into the University and continue in the course until the full requirement has been met or until a regular exemption card is filed in the Registrar's office.

[2]Two hours of physical education for men, to be taken during the first year of residence, and four hours of physical education for women, to be taken during the first and second years in residence, are required for graduation of students presenting fewer than 58 semester hours, unless previous credit has been allowed.

## The Suggested Curriculum in Public-school Music

*Leading to the Degree of Bachelor of Music in*

## PUBLIC-SCHOOL MUSIC*

### Freshman

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied | 4 | Applied | 4 |
| M. 1 | 4 | M. 2 | 4 |
| Glee, Orch., Band, or Cho. | 1 | Glee, Orch., Band, or Cho. | 1 |
| English | 3 | English | 3 |
| Sc. or math. | 3 | Sc. or math. | 3 |
| P. ed.[2] | 1 | P. ed.[2] | 1 |
| Psychol. 1 | 3 | P. Sp. | 3 |
| | 19 | | 19 |
| Mil. sc.[1] | 1 | Mil. sc.[1] | 1 |
| | 20 | | 20 |

### Sophomore

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied | 4 | Applied | 4 |
| M. 3 | 4 | M. 4 | 4 |
| Glee, Orch., Band, or Cho. | 1 | Glee, Orch., Band, or Cho. | 1 |
| M. 79 | 2 | M. 80 | 2 |
| English | 3 | Soc. studies | 3 |
| Soc. studies | 3 | P. ed.[2] (W) | 1 |
| P. ed.[2] (W) | 1 | 2nd Field | 3 |
| | (W) 18 | Instr. Class | 1 |
| Mil. sc.[1] | 2 | | (W) 19 |
| | (M) 19 | Mil. sc.[1] | 2 |
| | | | (M) 20 |

### Junior

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied | 4 | Applied | 4 |
| M. 107 | 2 | M. 108 | 2 |
| Instr. Class | 1 | M. 182 or 183 | 2 |
| Glee, Orch., Band, or Cho. | 1 | Instr. Class | 1 |
| Soc. studies | 3 | Glee, Orch., Band, or Cho. | 1 |
| 2nd Field | 2 | Soc. studies | 3 |
| Ed. 106 | 3 | 2nd Field | 5 |
| Ed. 109 | 2 | Ed. elec. | 2 |
| | 18 | | 20 |

### Senior

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Applied | 4 | Applied | 4 |
| M. 117 | 2 | M. 118 | 2 |
| M. 185 | 3 | Instr. Class | 1 |
| Instr. Class | 1 | Glee, Orch., Band, or Cho. | 1 |
| Glee, Orch., Band, or Cho. | 1 | M. 241 | 2 |
| M. 240 | 2 | Ed. 120 | 2 |
| 2nd Field | 3 | Ed. 169 | 2 |
| H. Ed. | 2 | Ed. 214 | 2 |
| Ed. elec. | 2 | Ed. 224 | 3 |
| | 20 | | 19 |

All students majoring in Public-school Music must meet the general academic and professional requirements for all high-school teachers as prescribed in State Bulletin for Certification of Teachers, in addition to the School of Music degree requirements.

Subject to the approval of the Director of the School of Music, Public-school Music may be chosen as a single teaching field, with training required in both Secondary and Elementary School Music.

Candidates for certification in music may be recommended for certification in one field with an upper limit of 68 hours in music and with no fewer than 48 hours distributed in subjects other than Education, approved by the Director of the School of Music.

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*See W. V. U. Bulletin on Teacher Certification for Second-field Requirements.

[1]Military science will not be accepted as physical education. Women may meet the four-hour physical education activity requirement by taking group 1 (Swimming), 2 (Dancing) 3 (Individual Sport), and 4 (Group Sport); men may meet it by taking P. E. 1, 2, and 180.

[2]Two hours of physical education for men, to be taken during the first year of residence, and four hours of physical education for women, to be taken during the first and second years in residence, are required for graduation of students presenting fewer than 58 semester hours, unless previous credit has been allowed.

# THE COURSES OF INSTRUCTION

## Theory of Music and General Courses*

Professor CUTHBERT; Associate Professors HINKEL, WEISER, and WOOD; Instructors MOORE, SNEE, MCGREGOR, MCWHORTER, and ROSE

1. **Theory.** I, II. 4 Hrs. Staff

2. **Theory.** I, II. 4 Hrs. PR: Music 1. Staff

3. **Theory.** I, II. 4 Hrs. PR: Music 1 and 2. Staff

4. **Theory.** I, II. 4 Hrs. PR: Music 1, 2, and 3. Staff

Music 1, 2, 3, and 4 constitute a composite course in musical theory, including fundamentals, sight reading, ear training and dictation, elementary and advanced harmony, keyboard harmony, and an approach to elementary counterpoint.

72. **Introduction to Music.** I, II. 2 Hrs. Fundamentals of reading, rhythm, and theory; terminology. Staff

77. **Enjoyment of Music.** I, II. 1 Hr. A non-technical course dealing with the elements of music-rhythm, timbre, form, harmony, melody, etc. Not open to music majors. Mr. Weiser and Mr. Wood

79. **Survey of Music Literature and History.** I. 2 Hrs. General survey of musical literature and history. Miss Hinkel

80. **Survey of Music Literature and History.** II. 2 Hrs. Continuation of Music 79. Miss Hinkel

107. **Form and Analysis.** I. 2 Hrs. A detailed study of the structure of music. Mr. Weiser

108. **Form and Analysis.** II. 2 Hrs. Continuation of Music 107. Mr. Weiser

109. **Introductory Counterpoint.** I. 2 Hrs. Strict two-part counterpoint in the five species. Mr. Weiser

110. **Counterpoint.** II. 2 Hrs. Strict and free counterpoint in three and four parts. Mr. Weiser

111. **Double Counterpoint and Canon.** I. 3 Hrs. Double counterpoint at the octave, tenth and twelfth; strict and free imitation. Staff

112. **Fugue.** II. 3 Hrs. Analysis and writing of classical fugue. PR: Music 111. Staff

113. **Introductory Composition.** I. 2 Hrs. PR: M. 4. Original creative writing in the smaller forms. Mr. Weiser

114. **Composition.** II. 2 Hrs. PR: M. 113. Continuation of original writing. Mr. Weiser

115. **Sight Playing.** I, II. 1 Hr. Study of the factors essential to the sight playing of varied piano compositions. Staff

116. **Sight Playing.** I, II. 1 Hr. Continuation of Music 115. Staff

117. **Orchestration.** I. 2 Hrs. PR: M. 4. Arrangements for string orchestra. Projects taken from choral and piano compositions. Elements of wood winds and brass. Mr. Wood

*No additional fees charged for theory-of-music and general courses.

**118. Orchestration.** II. 2 Hrs. PR: M. 117. Arrangements for wood wind and brass separately and together with strings. Transcriptions of piano compositions. Mr. Wood

**180. Survey of Operatic Music.** I, II. 2 Hrs. Miss Hinkel

**182. Choral Conducting.** I, II. 2 Hrs. The conductor's art in the choral field, including practical experience in conducting choral groups. Miss Hinkel

**183. Instrumental Conducting and Score Reading.** I, II. 2 Hrs. The conductor's art in the instrumental field, including score reading and practical experience in conducting instrumental groups. Mr. McGregor

**185. Public-school Music and Adolescent Voice.** I, II. 3 Hrs. Essentials of public-school music, including the study of changing voice. Miss Hinkel

**186. Composition.** I. 2 Hrs. Original writing of vocal music. PR: M. 113 and M. 114. Mr. Weiser

**187. Composition.** II. 2 Hrs. Original writing of instrumental music. PR: M. 113 and M. 114. Mr. Weiser

**198. Original major work in composition.** I, II. 2 Hrs. Required for degree in Theory and Composition. Staff

**Men's Glee Club.** I, II. 1 Hr. each semester. Mr. Cuthbert

**Women's Glee Club.** I, II. 1 Hr. each semester. Miss Hinkel

**University and Community Orchestra.** I, II. 1 Hr. each semester. Mr. Wood

**University and Community Mixed Chorus.** I, II. 1 Hr. each semester. Mr. Cuthbert

**Band.** I, II. 1 Hr. each semester. Open to male students who have satisfied the basic military requirement and have been approved by the director of the Band. Mr. McGregor

**200s. Band, Orchestra, and Chorus Clinic.** 2 Hrs. Special problems of organization and development, including literature, rehearsal technique, drilling, tuning, and motivation of student practice. Lecture and discussion groups. This clinic will function with laboratory groups of high-school students. Staff

**240. History of Music.** I. 2 Hrs. Survey of the progress of music history from medieval times to the end of the classical-school period. Mr. Wood

**241. History of Music.** II. 2 Hrs. Continuation of Music 240, including the romantic and modern schools. Mr. Wood

**281. Survey of Symphonic Music.** I, II. 2 Hrs. Miss Hinkel

## Voice

Professor CUTHBERT; Instructors MCGREGOR, MCWHORTER, and ROSE

The material used is selected according to individual needs. Vocalises; English, Italian, French, and German song literature; arias from standard operas and oratorios. Before graduation each student is required to give a public recital of selections chosen from the standard literature for the voice.

**199. Graduation Recital.** I, II. 2 Hrs. (Required for degree.)

## Piano

Associate Professor WEISER; Instructors SNEE and MCWHORTER

The material used is selected according to individual needs. Technical studies, etudes, and standard compositions of Bach, Mozart, Haydn, Beethoven, Schubert, Schumann, Chopin, Liszt, Brahms, Debussy, Dohnanyi, Scriabine, etc. Before graduation each student is required to give a public recital.

**199. Graduation Recital.** I, II. 2 Hrs. (Required for degree.)

## Violin

Associate Professor WOOD

The material used is selected according to individual needs. Technical studies by Schradieck, Sevcik, etc. Solos and concertos by Wieniawski, Vieuxtemps, Sarasate, Viotti, Spohr, Mozart, etc. Before graduation each student is required to give a public recital of compositions chosen from the standard literature for the violin, including concertos of Bruch, Mendelssohn, Conus, Paganini, etc.

**199. Graduation Recital.** I, II. 2 Hrs. (Required for degree.)

## Pipe Organ

Instructor SNEE

The material used is selected according to individual needs. Technique; standard works of Bach, Mendelssohn, Guilmant, Hollins, etc. Before graduation each student is required to give a public recital of compositions chosen from the standard literature for the pipe organ.

**199. Graduation Recital.** I, II. 2 Hrs. (Required for degree.)

## Band and Orchestra Instruments

Associate Professor WOOD and Instructor MCGREGOR

Individual lessons; standard methods; materials selected to meet individual needs.

**199. Graduation Recital.** I, II. 2 Hrs. (Required for degree.)

## Ensemble

Professor CUTHBERT and Associate Professor WOOD

**153, 154. Accompanying.** I and II. 1 Hr. per semester. The course furnishes opportunity to acquire the art of accompanying songs and violin and cello solos.

**155, 156. Chamber Music.** I and II. 1 Hr. per semester. The study of sonatas, trios, and string quartettes of the most famous composers. Open to violinists, cellists, pianists, and viola players.

## Instrument Classes[1]

Associate Professor WOOD and Instructor MCGREGOR

**191. Trombone.** I, II. 1 Hr. Study of the trombone. Tone production, simple exercises and scales, easy pieces, positions of the slide trombone, and their relationship. Literature of brass instruments.

**192. Cornet.** I, II. 1 Hr. Study of the cornet. Tone production, simple exercises and scales, easy pieces, fingering of cornet. Literature of brass instruments.

**193. Clarinet.** I, II. 1 Hr. Study of the clarinet. Boehm system. Tone production, simple scales, and exercises.

**194. Violin.** I, II. 1 Hr. Study of the violin. Scales, simple pieces, exercises, positions, tuning, etc.

**195. Flute.** I, II. 1 Hr. Study of the flute. Boehm system. Tone production, simple scales, and exercises.

**196. Viola and Cello.** I, II. 1 Hr. Study of the viola and cello. Scales, simple pieces, exercises, positions, tuning, etc.

## Graduate Courses

Candidates for the Master's degree in Music are required to have completed the prescribed four-year curriculum of undergraduate study in Music, or to have completed such a curriculum, or its equivalent, at some institution of recognized standing.

General qualifying examinations are required of all candidates for the degree of Master of Music.

Each candidate for a degree must select his major subject in that department of Music in which his degree is to be taken, and submit a thesis showing marked attainment in some phase of this subject.

All Music courses leading toward the Master's degree in Music must be chosen from the 300 series in Music. However, elective courses may be chosen from the 200 or 300 series.

The requirements for the degree Master of Music in Public-school Music constitute 20 hours in Music and 10 hours electives in Education or Arts and Science subjects. The Music courses include 301(2), 302(2), 305(3), 306(3), 309(3), 313(3), and 399(4). Credit for work in Band and Orchestra Instruments will be accepted towards the Advanced Applied Music requirements.

The requirements for the degree Master of Music in Applied Music constitute 20 hours in Music and 10 hours electives in Arts and Science subjects. The Music courses include 301(4), 302(4), 307(3) or 313(3), 308(3), 309(3), and 399(3). Credit in Advanced Applied Music must be earned in Piano, Voice, Violin, or Pipe Organ.

**301. Advanced Applied Music.** I. 2 or 4 Hrs. Continuation of study in Applied Music (voice, piano, violin, pipe organ, band and orchestra instruments), including public performance of advanced compositions. Staff

[1]Students may use their own instruments, or instruments may be rented for a fee of $2.50 per semester.

**302. Advanced Applied Music.** II. 2 or 4 Hrs. Continuation of Music 301. Staff

**305. Advanced Public-school Music.** I. 3 Hrs. Survey and critical study of the vocal and instrumental repertoire of Public-school Music, with discussions of essentials in its performance. Miss Hinkel

**306. Advanced Public-school Music.** II. 3 Hrs. Continuation of Music 305. Comprehensive study, evaluation, and interpretation of musical masterpieces suitable for use in Public-school Music, including all of the principal types. Miss Hinkel

**307. Advanced Composition.** I, II. 3 Hrs. Composition in larger forms. Mr. Weiser

**308. Music Literature.** I, II. 3 Hrs. Survey and critical study of music literature in the major field of Applied Music. Staff

**309. Advanced Conducting.** I. 3 Hrs. Study and practice in the conducting of advanced choral and instrumental works, including advanced score-reading. Mr. Wood

**313. Advanced Orchestration.** II. 3 Hrs. A study in advanced technique of orchestral arranging including arranging of Bach's and Beethoven's solo instrumental works. Mr. Wood

**399. Thesis.** I, II. 2 to 4 Hrs. Including research in the Major or related field of music. Staff

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# The College of Pharmacy

## ORGANIZATION AND OBJECTIVES

In 1914, responding to the request of the West Virginia State Pharmaceutical Association, the Board of Regents established a Department of Pharmacy in the School of Medicine. The first course offered was a two-year course leading to the degree of Graduate in Pharmacy (Ph. G.).

In 1917 additional courses of three and four years, leading to the degrees of Pharmaceutical Chemist (Ph. C.) and Bachelor of Science in Pharmacy (B. S. Phar.), were established. The course leading to the degree of Graduate in Pharmacy was discontinued in 1924, and the course leading to the degree of Pharmaceutical Chemist was discontinued in 1932. Since 1932 a minimum of four years of study has been required.

The College of Pharmacy was estabished as a separate division of the University, June 6, 1936, by order of the Board of Governors.

The chief purpose of the College of Pharmacy is to provide a systematic instruction in pharmacy, its allied sciences, and such other subjects as are deemed to be essential in the education of a pharmacist, that he may meet the present and future demands of the profession in an able and intelligent manner. Its chief aim is to prepare its students for the intelligent practice of dispensing pharmacy, but it offers the facilities and instruction necessary for the practice of other branches of the profession.

Graduates of the College of Pharmacy are eligible for examination to practice pharmacy in any state, but graduates of this college who success-

fully pass the West Virginia State Board of Pharmacy examination are privileged to reciprocate with 45 other states and with the District of Columbia, Alaska, and Porto Rico without further examination, provided they possess the experience requirements of these states before taking the examination.

## THE STANDING COMMITTEE

SCHOLARSHIP COMMITEE: Messrs HAYMAN, BERGY, GEILER, and WOJCIK.

## REQUIREMENTS FOR THE DEGREE

The degree of Bachelor of Science in Pharmacy (B. S. Phar.) is conferred upon any student who complies with the general regulations of the University concerning degrees, satisfies all entrance and college requirements, and completes the basic two-year course, together with one of the following curricula providing for specialized training during the third and fourth years:

A. Retail Pharmacy (142 hours)
B. Industrial Pharmacy (145 hours)

The curriculum for the first two years is the same for all students. At the beginning of the third year the student is expected to select a field of specialization and pursue for the remaining two years the courses outlined in that group.

**Substitutions.** A student who desires to substitute another course in place of any course prescribed in his curriculum must obtain permission for such substitution from the Committee on Scholarship.

## BASIC COURSES REQUIRED FOR THE DEGREE*

| First Year | | | | Second Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Botany 1 | 4 | Botany 2 | 4 | Chem. 5 | 4 | Chem. 6 | 4 |
| Chem. 3 | 4 | Chem. 4 | 4 | Econ. 1 | 3 | Econ. 2 | 3 |
| Military 1 | 1 | English 2 | 3 | Military 3 | 2 | Military 4 | 2 |
| English 1 | 3 | Military 2 | 1 | Pharm. 5 | 3 | Pharm. 6 | 4 |
| Pharm. 1 | 3 | Pharm. 3 | 2 | Pharm. 4 | 2 | Pharm. 7 | 2 |
| Pharm. 2 | 2 | Pharm. 10 | 3 | Pharm. 11 | 3 | Pharm. 12 | 3 |
| Phys. Ed. 1 | 1 | Phys. Ed. 1 | 1 | Pharm. 9 | 2 | | |
| | 18 | | 18 | | 19 | | 18 |

### Retail Pharmacy‡

| Third Year | | | | Fourth Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Chem. 233 | 5 | Chem. 238 | 4 | Bacter. 101 | 5 | Pharm. 109 | 2 |
| Physics 1 | 3 | Pharm. 8 | 2 | Pharm. 108 | 3 | Pharm. 113 | 5 |
| Physics 3 | 1 | Pharm. 107 | 2 | Pharm. 110 | 3 | Pharm. 118 | 1 |
| Pharm. 103 | 2 | Pharm. 114 | 2 | Pharm. 201 | 3 | Pharm. 202 | 2 |
| Pharm. 106 | 2 | Physics 2 | 3 | Pharm. 203 | 2 | | |
| Pharm. 101 | 1 | Physics 4 | 1 | Pharm. 205 | 2 | | |
| Pharm. 102 | 1 | Physiol. 101 | 4 | | | | |
| | 15 | | 18 | | 18 | | 10 |

*Upon entering, those who plan to follow the Pharmacy-Medical Course should elect zoology instead of botany during the first year. Psychology, 3 hours, a modern foreign language, 12 hours, and comparative anatomy are required.

‡Additional approved elective courses to make a total of 142 hours are required for graduation.

## Industrial Pharmacy†

| Third Year | | | | Fourth Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Chem. 163 | 3 | Chem. 238 | 4 | Bacter. 101 | 5 | Biochem. 239 | 4 |
| Chem. 233 | 5 | Pharm. 8 | 2 | Chem. 251 | 3 | Pharm. 109 | 2 |
| Pharm. 103 | 2 | Pharm. 104 | 2 | Pharm. 108 | 3 | Pharm. 113 | 5 |
| Pharm. 106 | 2 | Pharm. 107 | 2 | Pharm. 110 | 3 | Pharm. 118 | 1 |
| Pharm. 205 | 2 | Physics 2 | 3 | Pharm. 201 | 3 | Pharm. 202 | 2 |
| Physics 1 | 3 | Physics 4 | 1 | Pharm. 203 | 2 | | |
| Physics 3 | 1 | Physiol. 101 | 4 | | | | |
| | 18 | | 18 | | 19 | | 14 |

## COMBINED PHARMACY AND MEDICAL COURSES

**Leading to Degree of Bachelor of Science in Pharmacy in the College of Pharmacy and to the Degree of Bachelor of Science in the College of Arts and Sciences and in the School of Medicine**

The Bachelor of Science degree in the College of Arts and Sciences and in the School of Medicine and the Bachelor of Science in Pharmacy degree in the College of Pharmacy are conferred upon any student who complies with the general regulations of the University concerning degrees, satisfies all entrance and college requirements, and the first year of the basic two-year course outlined on page 260, and the four-year curriculum outlined below, the last two years of which are taken in the School of Medicine, and sufficient electives to total 186 hours.

| Second Year | | | | Third Year | | | |
|---|---|---|---|---|---|---|---|
| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* | *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
| Chem. 5 | 4 | Chem. 6 | 4 | Chem. 163 | 3 | Chem. 36 | 6 |
| Fr. or Ger. | 3 | Fr. or Ger. | 3 | Fr. or Ger. | 3 | Fr. or Ger. | 3 |
| Military 3 | 2 | Military 4 | 2 | Pharm. 106 | 2 | Pharm. 107 | 2 |
| Pharm. 4 | 2 | Pharm. 6 | 4 | Physics 1 | 3 | Psychol. 101 | 3 |
| Pharm. 5 | 3 | Pharm. 7 | 2 | Physics 3 | 1 | Physics 2 | 3 |
| Pharm. 9 | 2 | Pharm. 12 | 3 | Pharm. 108 | 3 | Physics 4 | 1 |
| Pharm. 11 | 3 | | | Zool. 231 | 4 | | |
| | 19 | | 18 | | 19 | | 18 |

The fourth and fifth years to be completed as per curriculum of the first two years in the School of Medicine. In view of the fact that the enrollment of the School of Medicine is limited, application for entrance must be made in accordance with the regulations of the School of Medicine.

†Additional approved elective courses to make a total of 145 hours are required for graduation.

## SUGGESTED ELECTIVE COURSES

**First Semester**

| *Subject* | *Hrs.* |
|---|---|
| Biol. 1—Biology | 4 |
| Bot. 221—Plant Physiol. | 4 |
| Bus. Ad. 121—Elements of Marketing | 3 |
| Bus. Ad. 141—Business Law | 3 |
| Chem. 111—Synthetic Inorganic Chemistry | 3 |
| Chem. 214—Organic Qual. Anal. | 3 |
| Chem. 251—Industrial Inorganic Chemistry | 3 |
| Chem. 63 or 163—Physical Chemistry | 3 |
| Chem. 247—Stereochemistry | 2 |
| Chem. 141—Assigned Topics | 1 to 5 |
| Chem. 277—Synthetic Drugs | 2 |
| Chem. 343—Advanced Organic Chemistry | 3 |
| Econ. 111—Money and Banking | 3 |
| French 1—(When not offered for entrance credit) | 3 |
| Geol. 1—General Geology | 3 |
| Geol. 284—Mineralogy | 4 |
| German 1—(When not offered for entrance credit) | 3 |
| German 121—Scientific German | 3 |
| Math. 3—College Algebra | 4 |
| Math. 4—Plane Trigonometry | 2 |
| Mineral. 15—Minerals and Rocks | 4 |
| Pharm. 115—Microscopy | 2 to 3 |
| Pharm. 116—Pharmaceutical Investigations | 2 to 3 |
| Pharm. 117—Dispensing | 1 to 2 |
| Physics 109—Problems in General Physics | 2 |
| Pub. Speak. 11—Effective Speaking | 3 |
| Sociol. 101—Introd. to Sociol. | 3 |
| Zool. 3—General Zoology | 4 |
| Zool. 231—Comparative Anat. | 4 |

**Second Semester**

| *Subject* | *Hrs.* |
|---|---|
| Bus. Ad. 127—Salesmanship | 2 |
| Bus. Ad. 122—Marketing Problems | 3 |
| Bus. Ad. 148—Sales Management | 3 |
| Chem. 252—Indust. Org. Chem. | 3 |
| Chem. 162—Colloidal Chem. | 4 |
| Chem. 274—History of Chem. | 2 |
| Chem. 142—Assigned Topics | 1 to 5 |
| Chem. 214—Organic Qual. Anal. | 3 |
| Chem. 277—Synthetic Drugs | 2 |
| Ch. Eng. 102—Blow-Pipe Anal. and Assaying | 2 |
| Ch. Eng. 201—Unit Organic Processes | 3 |
| Ch. Eng. 202—Water Exam. and Purification | 2 |
| Econ. 114—Corporation Finance | 3 |
| French 2—(When not offered for entrance credit) | 3 |
| Geol. 1—General Geology | 3 |
| German 2—(When not offered for entrance credit) | 3 |
| German 122—Scientific German | 3 |
| Journal. 113—Newspaper Adv's. | 3 |
| Math. 3—College Algebra | 4 |
| Math. 4—Plane Trigonometry | 2 |
| Mineral. 15—Minerals and Rocks | 4 |
| Pharm. 115—Microscopy | 2 to 3 |
| Pharm. 116—Pharmaceutical Investigations | 2 to 3 |
| Pharm. 117—Dispensing | 1 to 2 |
| Physics 110—Problems in General Physics | 2 |
| Physics 116—Photography | 2 |
| Pub. Speak. 11—Effective Speaking | 3 |
| Zool. 2—Vertebrate Zool. | 4 |
| Psychol. 1—Intro. to Psychol. | 3 |
| Psychol. 10—Applied Psychol. | 3 |
| Psychol. 12 or 112—Experimental Psychology | 3 |

## THE COURSES OF INSTRUCTION

(For explanation of abbreviations see page 84)

Professors HAYMAN and BERGY, Associate Professor GEILER, and Mr. WOJCIK

1. **Theoretical Pharmacy.** I. 3 Hrs. Descriptive and experimental lectures and recitations, embracing a study of the apparatus and technique necessary for the correct procedure in the manufacture of pharmaceutical preparations (86 hrs.). Lectures and recitations. Mr. Geiler

2. **Pharmaceutical Arithmetic and Stoichiometry.** I. 2 Hrs. Lectures and recitations (36 hours). Mr. Wojcik

3. **Pharmaceutical Arithmetic.** II. 2 Hrs. Continuation of Pharmacy 2. Lectures and recitations (36 hours). Mr. Wojcik

4. **Operative Pharmacy Lectures.** I. 2 Hrs. A systematic consideration of the various official preparations for which the Pharmacopoeia and National Formulary give formulas and processes. Lectures and recitations (36 hours). Mr. Geiler

5. **Operative Pharmacy Laboratory.** I. 3 Hrs. This course is carried in conjunction with Pharmacy 4. The representative classes of preparations of the Pharmacopoeia and National Formulary are manufactured. (100 hours). Mr. Geiler

6. **The Art of Compounding.** II. 4 Hrs. The more difficult pharmaceuticals and miscellaneous preparations are considered in connection with the modern methods of compounding. Lectures and recitations (72 hours). Mr. Bergy

7. **Art of Compounding Laboratory.** II. 2 Hrs. A laboratory course in conjunction with Pharmacy 6. Laboratory (100 hours). PR: Pharmacy 4 and 5. Mr. Bergy

8. **Pharmaceutical Jurisprudence.** II. 2 Hrs. An intensive study of the Harrison Narcotic Law, the West Virginia Pharmacy Law, and other state and national laws pertaining to pharmacy. Lectures and recitations (36 hours). Mr. Hayman

9. **Pharmaceutical Latin.** I. 2 Hrs. Pronunciation, declension, English and Latin translations, comparisons, abbreviations and vocabularies of medicine and pharmacy. Lectures and recitations (36 hours). Mr. Wojick

10. **Vegetable Histology.** II. 3 Hrs. The microscopical characteristics of starches, powdered vegetable drugs, and their adulterants. Lectures and recitations (18 hours), laboratory (100 hours). Mr. Geiler

11. **Pharmacognosy.** I. 3 Hrs. An intensive study of vegetable and animal drugs, their collection, preparation, constituents, and applicability. Lectures and recitations (54 hours). Mr. Hayman

12. **Pharmacognosy.** II. 3 Hrs. A continuation of Pharmacy 11. Lectures and recitations (54 hours). Mr. Hayman

101. **Commercial Design.** I. 1 Hr. Practical water-color lettering emphasizing arrangement and color harmony, for show cards and store windows. Laboratory (50 hours). Mr. Hayman

102. **Accounting.** I. 1 Hr. Laboratory (50 hours). Mr. Hayman

103. **Hygiene.** I. 2 Hrs. Lectures and recitations (36 hours). Mr. Bergy

104. **Qualitative Analysis of the Alkaloids and Synthetics.** II. 2 Hrs. Laboratory (100 hours). Mr. Bergy

106. **Pharmaceutical Chemistry.** I. 2 Hrs. Deals specifically with inorganic chemistry as applied to pharmacy. Lectures and recitations (36 hours). Mr. Bergy

107. **Pharmaceutical Chemistry.** II. 2 Hrs. A continuation of Pharmacy 106. Special attention to the chemistry and adaptability of germicides, fungicides, parasites, rodenticides, etc. (36 hours). Mr. Bergy

108. **Prescriptions and Incompatibilities.** I. 3 Hrs. The prescription is studied relative to the interpretation of the chemical, pharmaceutical, and therapeutical incompatibilities, posology, art of dispensing, and Latin nomenclature. Lectures and recitations (54 hours). Mr. Hayman

**109. Prescription Practice.** II. 2 Hrs. A laboratory course embracing prescription filling and dispensing. Laboratory (100 hours).
Mr. Hayman

**110. Assay and Pharmaceutical Testing.** I. 3 Hrs. A critical study of U. S. P. & N. F. methods of assays. Lecture (18 hours), laboratory (100 hours). Mr. Geiler

**113. U. S. P. and N. F.** II. 5 Hrs. A comprehensive study of the United States Pharmacopoeia and the National Formulary, including review on related subjects. Recitations (90 hours). Mr. Hayman

**114. Commercial Pharmacy.** II. 2 Hrs. The establishment, management, and development of a modern pharmacy, with special emphasis on business economics, accounting, correspondence, salesmanship, and advertising. Lectures and recitations (36 hours). Mr. Geiler

**115. Advanced Microscopy.** I or II. 2 to 3 Hrs. A laboratory course concerned with the microscopy of vegetable foods and technical products, quantitative microscopic methods, and micrometry. Permission of instructor must be obtained before electing. Laboratory (100 to 150 hours). Mr. Hayman

**116. Pharmaceutical Investigation.** I or II. 2 or 3 Hrs. Original investigation in pharmacy or pharmaceutical chemistry. Laboratory and collateral reading (100 to 150 hours). Mr. Hayman and Staff

**117. Dispensing.** I or II. 1 or 2 Hrs. A practical course in University Pharmacy under the supervision of a registered pharmacist in compounding, pricing, and filing prescriptions. Laboratory (50 to 100 hours). Mr. Hayman and Staff

**118. New and Nonofficial Remedies.** II. 1 Hr. A critical study of the most recent pharmaceutical introductions as approved by the Council of Pharmacy of The American Medical Association. Lectures and recitations (18 hours). Mr. Bergy

**120. Cosmetics.** I. 1 or 2 Hrs. A laboratory course devoted to compounding a large number of preparations of this type, including perfumes (50 or 100 hours). Mr. Bergy

**121. Household Products.** II. 1 or 2 Hrs. Laboratory (100 hours).
Mr. Bergy

**201. Pharmacology.** II. 3 Hrs. A general survey of the pharmacological, antidotal, and therapeutic action of the more potent drugs which the pharmacist is called upon to dispense. Lectures and recitations (54 hours). Mr. Bergy

**202. Pharmacology.** II. 2 Hrs. A continuation of Pharmacy 201. Lectures and recitations (36 hours). Mr. Bergy

**203. Biological and Chemical Therapy.** I. 2 Hrs. A thorough study of hormones, vitamins, glandular products, the newer chemical medicinals, and the methods of preparation and standardization of biologicals. (36 hours). Mr. Bergy

**205. History of Pharmacy.** I. 2 Hrs. Mr. Bergy

# The School of Physical Education and Athletics

## ORGANIZATION

For purposes of administration and instruction the School of Physical Education and Athletics is organized into the following departments:

I. Service program for men.
II. Service program for women.
III. Curriculum for majors and graduate students preparing for positions in health and physical education, athletic coaching, and recreation.
IV. Intramural Sports.

The various departments of the school serve the students of all departments of the University by providing a systematic program of physical education and recreation.

The department of curriculum for majors provides professional training for all men and women who are desirous of becoming teachers of physical education and coaches in high schools and colleges, or directors of public recreation. Those who complete the course will also have satisfied the prerequisites for entrance into departments in universities giving training in physical therapy. Anyone completing the course of study outlined by the school and authorized by the University and receiving an honor-point average of one honor point for each credit hour taken in the University qualifies for the degree of Bachelor of Science in Physical Education (B.S.P.E.). Courses are also offered in health and physical education at the graduate level leading to the Master of Science degree. The bulletins and announcements of the Graduate Council should be referred to for further details of the residence and course requirements.

### THE STANDING COMMITTEES

SCHOLARSHIP: Miss Hurst, Messrs. Tork and Semon.

GRADUATE COURSES: Miss Griffin and Mr. Tork.

INTRAMURAL SPORTS: Miss Griffin, Messrs. Semon, Tork, Hawley, and senior managers.

PLACEMENT AND RECOMMENDATION: Miss Griffin and Mr. Semon.

ATHLETIC BOARD: Miss Griffin, Messrs. Deem, Grumbein, Hawley, Pride, Stemple, Westover, Wheat, and William Fette.

## Requirements for the Degree

The Degree of Bachelor of Science in Physical Education may be conferred upon any student who satisfies the entrance requirements and offers 128 hours[2] with grades of D or above, and an average grade of C.

### REQUIRED AND ELECTIVE SUBJECTS

Of the 128 hours which are required for the degree of Bachelor of Science in Physical Education, at least 40 hours are required in the School of

[2]Students may decrease the number of hours required for graduation by doing work of superior quality. For details see page 54.

Physical Education and Athletics. The remaining hours must be selected from such courses as may be approved by the adviser. A candidate for a degree is required to make a selection of one of the teaching combinations on page 12 and to complete the number of semester hours required in each teaching group.

The courses are arranged to meet the University requirements for the degree of Bachelor of Science in Physical Education as well as the State requirements for certification. The curriculum for the four-year course has been so arranged that consideration is given to the various activities which should constitute a well-rounded program of physical education for boys and girls of high-school age. These courses are arranged in eleven groups as follows:

A. Required courses in physical education which include the theory and practice of physical education courses for men and women are: Physical Education 11, 12, 13, 14, 43, 44, 45, 46, 111, 112, 113, 114, 141, 142, 143, 144, and 156 for men; and Physical Education 15, 16, 25, 26, 27, 28, 57, 58, 59, 60, 125, 126, 127, 128, 151, 157, 158, 159, and 160 for women. These courses are known as the Physical Education block.

B. Required theory courses in physical education are: Physical Education 74, 77, 150, 166, 167, 175, and 277.

C. Required courses in recreation which include both theory and practice in recreation for men and women are: Recreation 1, 2, 3, and 101.

D. Required courses in health education, namely, Health Education 1, 2, 101, and 103.

E. A required course in safety education, namely, Safety Education 181.

F. Required courses in English and public speaking.

G. Required courses in science which furnish a background for physical education.

H. Required courses in education which consider the principles of general education.

I. Required courses in social studies.

J. Required courses in military science for men of the University.

K. Elective courses which are taken at the pleasure of the student.

It is understood that a sound and vigorous body is essential to all students who elect this curriculum. Each student must, therefore, pass a thorough physical examination before he will be allowed to enroll in this program. Special emphasis is placed upon the personal and professional qualifications of the student as well as upon a high standard of scholarship.

Student teaching of high-school classes in physical education, as well as practice coaching of high-school athletic teams is available in the University Rural High School. Student assistance in college classes in physical education is required in connection with the service programs for both men and women. Additional practice opportunities are frequently available in the Monongalia County Schools.

## Recommendation for Certification

The prospective teacher who intends to apply for certification for school service in the State should take care to satisfy the requirements for other teaching subjects and the required courses in education and physical education.

### THE CERTIFICATION REQUIREMENTS

For a statement of the conditions governing the preparation of high-school teachers and their recommendation to the State Board for certification, see the special Bulletin, *Teacher Certification Regulations at the University.*

### THE GENERAL PHYSICAL EDUCATION REQUIREMENTS FOR CERTIFICATION

All students who plan to be certificated to teach must meet the University requirements of a minimum of four (4) hours (men) and six (6) hours (women) of Health and Physical Education. The specific courses offered to meet this requirement are as follows: FOR MEN: Physical Education 1* (1); 2* (1); Health Education 180 (2). Total, 4 hrs. FOR WOMEN: One course in each of the following groups: Athletics 9 or 10; Dancing 2, 3, 4, 5, or 15; Individual Activity 6, 7, 8, 17, or 57; Swimming 1 or 16; Health Education 180. Total, 6 hrs.

### SUGGESTED TEACHING COMBINATIONS FOR FIRST-CLASS HIGH-SCHOOL CERTIFICATES

1. Physical education and biological science.
2. Physical education and mathematics.
3. Physical education and social studies.
4. Physical education and English.
5. Physical education and physical and general science.
6. Physical education and physical science.
7. Physical education and biological and general science.
8. Other combinations approved by the adviser.

## The General and Specialized Curricula

A General Curriculum looking toward broad, general preparation in the fields of health and physical education, athletic coaching, and public recreation and providing teacher certification and graduation with a degree of Bachelor of Science in Physical Education is offered by the School of Physical Education and Athletics.

Plans have been approved also for the development of three Specialized Curricula looking toward additional and more detailed training in either health education, athletic coaching, or public recreation. Students generally will take, in their first two years, background work in science and the general liberal arts subjects. In the Junior year opportunity is offered to continue the general curriculum, which provides broad training in health and physical education, athletic coaching, and recreation, or to elect one of the three specializing curricula, which will enable the student to devote more time to the chosen field of either health education, athletic coaching, or recreation.

*This requirement should be met by the men in their first year of residence and by the women in their first two years of residence.

The General Curriculum was modified by action of the faculty and of the Council of Administration in the spring of 1940 in order to provide a greater number of hours in health education and recreation and to make mandatory the work in camping and safety education by all majors. The Specialized Curricula will be made available as rapidly as personnel and facilities permit. The requirements for teacher certification and graduation will remain the same.

## THE SERVICE PROGRAM FOR MEN

Assistant Professors TORK, RODGERS, and SMITH; Instructors SEMON and PATTON

The courses offered in this department are designed to meet the needs of the men of the University for an organized program of instruction and recreation during their period of residence. The purposes of the department are to develop recreational skills which can be enjoyed while in college and invested in leisure time after college, to establish habits of regular participation, and to develop favorable attitudes toward wholesome play.

Students completing Physical Education 1 and 2 meet the University requirements of two hours' credit in physical education as a prerequisite for graduation of all students subject to this requirement.

During Freshmen Week all freshmen report at the Men's Field House for assignment of lockers and for appointment for physical and medical examination. These examinations are the guide in the selection of a program of physical education for the individual student. See the *Bulletin* of the department of service program for men.

Students who are found to be physically unable to engage in regular activity will be assigned to the *restricted group* for a restricted program of physical education recommended by the University physician and under the direction of the Staff of the department.

Students who wish to stubstitute Varsity athletics for Physical Education 1 or 2 may do so by obtaining permission from both the coach of the respective sport and the director of the service program. Members of this athletics-for-credit group are required to take all tests and examinations given to the regular group. Credit in Physical Education 1 and 2 earned by participation in the athletics-for-credit group will not be accepted by the State Department for certification.

### COURSES

1. **Service Program for Men.** I. 1 Hr. Required of all freshman men in the University.

   Students in the regular group will be organized into classes for instruction and competition in the following activities:

   Fall season—speedball, soccer, tennis, touch football, giant volleyball.

   Winter season—basketball, handball, badminton. Mr. Tork and Staff

2. **Service Program for Men.** II. 1 Hr. Continuation of course I. Required of all freshman men in the University.

   Students in the regular group will be organized into classes for instruction and competition in the following activities:

Winter season—indoor baseball, giant volleyball, handball, basketball, and volleyball.

Spring season—softball, track and field, tennis, giant volleyball.

Mr. Tork and Staff

## THE SERVICE PROGRAM FOR WOMEN

Professor GRIFFIN; Assistant Professor HURST; Instructors BASON and MATTHEWS

The courses offered in this department are designed to meet the needs of the women of the University for an organized program of instruction and recreation during their period of residence. Four semester hours of three periods each week are required for graduation of all women students unless they enter with 58 hours of advanced credit. The offerings include both indoor and outdoor activities.

Each woman student subject to the foregoing requirements is required to pass a minimum test in swimming, play skillfully one highly organized sport and one individual sport, meet a definite standard of rhythm, and gain a knowledge of hygiene in relation to wholesome living.

The four semesters of work should be selected from the following four groups:

| | |
|---|---|
| Group 1—Physical Education 1 or 16 | (Swimming) |
| Group 2—Physical Education 2, 3, 4, 5, or 15 | (Dancing) |
| Group 3—Physical Education 6, 7, 8, 17, or 57 | (Individual Sport) |
| Group 4—Physical Education 9 or 10 | (Group Sport) |

### COURSES

These courses need not be taken in sequence.

1. **Swimming, Diving, and Life Saving.** I, II. 1 Hr. Staff
2. **Elementary Modern Dancing.** I, II. 1 Hr. Staff
3. **Folk Dancing.** I, II. 1 Hr. Staff
4. **Tap Dancing.** II. 1 Hr. Staff
5. **Social Dancing.** I. 1 Hr. (Limited to beginners.) Staff
6. **Stunts, Tumbling, and Pyramid Building.** I, II. 1 Hr. Staff
7. **Archery.** I, II. 1 Hr.
8. **Minor Sports.** I, II. 1 Hr. Staff
9. **Athletics.** I. 1 Hr. Soccer and Volleyball. Staff
10. **Athletics.** II. 1 Hr. Basketball and Softball. Staff

11, 12, 13, and 14. **Restricted Activities.** I, II. 1 Hr. (May be substituted for the required courses upon recommendation of the Health Service.) Staff

15. **Advanced Modern Dancing.** I, II. 1 Hr. PR: Phys. Ed. 2. Staff

**16. Advanced Swimming, Diving, and Life Saving.** I, II. 1 Hr. PR: Phys. Ed. 1. Staff

**17. Tennis.** II. 1 Hr. Staff

**57. Gymnastics.** I, II. 1 Hr. Conditioning exercises. Staff

**101, 102. Service Program for Junior Women.** I and II. 1 Hr. Students may select any course from the above groups for which they have not previously received credit. Staff

**103, 104. Service Program for Senior Women.** I and II. 1 Hr. Students may select any course from the above groups for which they have not previously received credit. Staff

## The Four-year Curriculum in Physical Education

*(Leading to the Degree of Bachelor of Science in Physical Education)*

GENERAL MINIMUM REQUIREMENTS:

Physical education for men (32); for women (37); health education (8); recreation (8); safety education (2); English and public speaking (12); social studies (12); science—anatomy, biology, chemistry, physiology (20); education (20); military science (men) (6); electives (men) (12); electives (women) (15).

NOTE: Humanities 1 may be substituted for four Hrs. of social studies, and Humanities 2 fulfills the requirement in English Literature.

### THE CURRICULUM IN PHYSICAL EDUCATION FOR MEN

**First Year**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| English 1 | 3 | English 2 | 3 |
| Biology 1 | 4 | History 2 | 3 |
| History 1 | 3 | Phys. Ed. 13 | 1 |
| Phys. Ed. 11 | 1 | Phys. Ed. 14 | 1 |
| Phys. Ed. 12 | 1 | Pub. Spk. 11 | 3 |
| Health Ed. 1 | 2 | Elective | 4 |
| Mil. Sci. 1 | 1 | Mil. Sci. 2 | 1 |
| | 15 | | 16 |

**Second Year**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Engl. 3, 4, or 5 | 3 | Phys. Ed. 74 | 4 |
| Chemistry 1 | 4 | Chemistry 2 | 4 |
| Phys. Ed. 43 | 1 | Phys. Ed. 45 | 1 |
| Phys. Ed. 44 | 1 | Phys. Ed. 46 | 1 |
| Phys. Ed. 77 | 2 | Recreation 2 | 2 |
| Recreation 1 | 2 | Mil. Sci. 4 | 2 |
| Recreation 3 | 2 | Health Ed. 2 | 2 |
| Mil. Sci. 3 | 2 | | |
| | 17 | | 16 |

**Third Year**

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Educ. 106 | 3 | Zool. 151 | 4 |
| Educ. 109 | 2 | Phys. Ed. 113 | 1 |
| Educ. elective | 2 | Phys. Ed. 114 | 1 |
| Phys. Ed. 111 | 1 | Phys. Ed. 150 | 3 |
| Phys. Ed. 112 | 1 | Recreation 101 | 2 |
| Phys. Ed. 175 | 3 | Educ. elective | 2 |
| Health Ed. 101 | 2 | Sociol. 101 | 3 |
| Safety Ed. 181 | 2 | | |
| Ser. Program Assistance | 0 | | |
| | 16 | | 16 |

**Fourth Year**

| *First Sem.* | *Hrs.* | | *Second Sem.* | *Hrs.* | |
|---|---|---|---|---|---|
| Phys. Ed. 141 | 1 | | Phys. Ed. 142 | 1 | |
| Phys. Ed. 143 | 1 | | Phys. Ed. 144 | 1 | |
| Health Ed. 103 | 2 | | Phys. Ed. 156 | 1 | |
| Educ. 120 | 2 | *or electives* | Phys. Ed. 277 | 3 | |
| Educ. 152 | 2 | | Educ. 120 | 2 | *or electives* |
| Educ. 224 | 3 | | Educ. 152 | 2 | |
| Ed. elect. | 2 | | Educ. 224 | 3 | |
| Educ. 214 | 2 | | Ed. elect. | 2 | |
| | | | Educ. 214 | 2 | |
| | 12 or 15 | | | 15 or 17 | |

## THE CURRICULUM IN PHYSICAL EDUCATION FOR WOMEN

### First Year

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| English 1 | 3 | English 2 | 3 |
| History 1 | 3 | History 2 | 3 |
| or | | or | |
| Humanities 1 | 4 | Humanities 2 | 4 |
| Biology 1 | 4 | Pub. Spk. 11 | 3 |
| Phys. Ed. 25 | 1 | Phys. Ed. 26 | 1 |
| Phys. Ed. 27 | 1 | Phys. Ed. 15 | 1 |
| Phys. Ed. 28 | 1 | Phys. Ed. 16 | 1 |
| Health Ed. 1 | 2 | Electives | 4 |
| | 15 or 16 | | 16 or 17 |

### Second Year

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Chemistry 1 | 4 | Chemistry 2 | 4 |
| Phys. Ed. 57 | 1 | Phys. Ed. 74 | 4 |
| Phys. Ed. 59 | 1 | Phys. Ed. 58 | 1 |
| Phys. Ed. 77 | 2 | Phys. Ed. 60 | 1 |
| Recreation 1 | 2 | Recreation 2 | 2 |
| Recreation 3 | 2 | Health Ed. 2 | 2 |
| Elective | 3 or 4 | Elective | 3 |
| | 15 or 16 | | 17 |

### Third Year

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Educ. 106 | 3 | Zool. 151 | 4 |
| Educ. 109 | 2 | Sociol. 101 | 3 |
| Phys. Ed. 125 | 1 | Phys. Ed. 126 | 1 |
| Phys. Ed. 127 | 1 | Phys. Ed. 128 | 1 |
| Phys. Ed. 167 | 2 | Phys. Ed. 151 | 2 |
| Phys. Ed. 175 | 3 | Phys. Ed. 166 | 3 |
| Health Ed. 101 | 2 | Recreation 101 | 2 |
| Safety Ed. 181 | 2 | | |
| | 16 | | 16 |

### Fourth Year

| *First Sem.* | *Hrs.* | *Second Sem.* | *Hrs.* |
|---|---|---|---|
| Phys. Ed. 157 | 1 | Phys. Ed. 158 | 1 |
| Phys. Ed. 159 | 1 | Phys. Ed. 160 | 1 |
| Health Ed. 103 | 2 | Phys. Ed. 277 | 3 |
| Educ. 120 (or electives) | 2 | Educ. 120 (or electives) | 2 |
| Educ. 152 (or electives) | 2 | Educ. 152 (or electives) | 2 |
| Educ. 224 (or electives) | 3 | Educ. 224 (or electives) | 3 |
| Educ. 214 (or electives) | 2 | Educ. 214 (or electives) | 2 |
| Ed. elect. (or electives) | 2 | Ed. elect. (or electives) | 2 |
| | 15 | | 16 |

REQUIRED COURSES FOR MEN: Physical Education **11, 12, 13, 14, 43, 44, 45, 46, 111, 112, 113, 114, 141, 142, 143, 144,** and **156** — Theory and Practice of Physical Education for freshmen, sophomores, juniors, and seniors (17 hrs.); Individual Gymnastics **150** (3). Total 20 hrs.

REQUIRED COURSES FOR WOMEN: Physical Education **15, 16, 25, 26, 27, 28, 57, 58, 59, 60, 125, 126, 127, 128, 151, 157, 158, 159,** and **160**— Theory and Practice of Physical Education for freshmen, sophomores, juniors and seniors (20 hrs.); Individual Gymnastics **166** (3); Rhythmic Form and Analysis **167** (2). Total, 25 hrs.

REQUIRED COURSES FOR MEN AND WOMEN: Personal Health in Campus Situations (2); Personal and Community Hygiene (2); School Health Problems (2); Administration of Health Education (2); The Camping Movement (2); Management and Direction of Playgrounds (2); Management and Direction of Social Centers (2); Administration of Public Recreation (2); Safety Education (2); Anatomy (4); Kinesiology (3); Administration of Physical Education (2).

## THE COURSES OF INSTRUCTION

Professors MORRIS and GRIFFIN; Assistant Professors HURST, RODGERS, SMITH, and TORK; Instructors SEMON, BASON, MATTHEWS, and PATTON

### Theory and Practice of Physical Education for Men

All courses indicated in the block of theory and practice of physical education for men are offered on Monday, Wednesday, and Friday, and on Tuesday, Thursday and Saturdays from 8:00 to 10:00 a. m.

Physical Education 11, 12, 13, and 14 are required of freshmen men; Physical Education 43, 44, 45, and 46 are required of sophomore men; Physical Education 111, 112, 113, and 114 are required of junior men; and Physical Education 141, 142, 143, 144, and 156 are required of senior men.

## LOWER DIVISION

**11. Football.** I. 1 Hr. Theory and practice in the fundamentals of football. Mr. Rodgers

**12. High-school Activities.** I. 1 Hr. Theory and practice in an activity program suitable for junior and senior high-school boys. Mr. Semon

**13. Marching, Games, and Relays.** II. 1 Hr. Theory and practice in an activity program suitable for junior and senior high-school boys. Mr. Semon

**14. Baseball.** II. 1 Hr. Theory and practice in the fundamentals of baseball. Mr. Rodgers

**43. Scoutmastership.** I. 1 Hr. The aims of the Boy Scout movement, its plan of organization, and the curriculum. Mr. Semon

**44. Basketball.** I. 1 Hr. Theory and practice in the fundamentals of basketball. Mr. Patton

**45. Apparatus and Tumbling.** II. 1 Hr. Natural activities in tumbling and the fundamentals of work on the apparatus. Staff

**46. Track and Field Athletics.** II. 1 Hr. Theory and practice in the fundamentals of track and field athletics. Mr. Smith

## UPPER DIVISION

**111. Athletic Conditioning and Training.** I. 1 Hr. Lectures, demonstrations, and practice work in the training and conditioning of athletes. Mr. Smith

**112. First Aid.** I. 1 Hr. Study of the standard and advanced first-aid requirements, and the work given for the Teacher's Certificate in first aid as set up by the American Red Cross. Mr. Smith

**113. Wrestling and Boxing.** II. 1 Hr. Theory and practice in the fundamentals of wrestling and boxing. Mr. Rodgers

**114. Minor Sports.** II. 1 Hr. Theory and practice in the fundamentals of badminton, golf, handball, tennis, and volleyball. Mr. Tork

**141. Theory of Coaching Football.** I and SII. 1 Hr. 9 weeks. Theory and practice including study of various systems and styles of play with special lectures on and practical experience in officiating. Mr. Rodgers

**142. Theory of Coaching Track.** II and SII. 1 Hr. 9 weeks. Theory and practice, with special lectures on and practical experience in officiating, and administration of track and field meets. Mr. Smith

**143. Theory of Coaching Basketball.** I and SII. 1 Hr. 9 weeks. Theory and practice, including study of various systems of styles of play with special lectures on and practical experience in officiating. Mr. Patton

**144. Theory of Coaching Baseball.** II and SII. 1 Hr. 9 weeks. Theory and practice, with special lectures on and practical experience in officiating. Mr. Rodgers

156. **Swimming, Life-saving, and Water Safety.** II. 1 Hr. Theory and practice in aquatics and safety and their use in the program of physical education. An opportunity will be given to qualify for the American Red Cross Water Safety Instructor Certificate. Mr. Tork

## Theory and Practice of Physical Education for Women

All courses indicated in the block of theory and practice of physical education for women are offered on Monday, Wednesday, and Friday from 8:00 to 10:00, on Monday, Wednesday, and Friday from 1:00 to 2:00, and on Tuesday, Thursday, and Saturday from 8:00 to 10:00. Assisting is arranged individually at convenient hours and is required of all major students without credit. Physical Education 25, 26, 27, and 28 are required of freshman women; Physical Education 57, 58, 59, and 60 are required of sophomore women; Physical Education 125, 126, 127, and 128 are required of junior women; and Physical Education 157, 158, 159, and 160 are required of senior women.

### LOWER DIVISION

15. **Advanced Modern Dancing.** II. 1 Hr. Continuation of P. E. 28. Mrs. Matthews

16. **Advanced Swimming.** II. 1 Hr. Continuation of P. E. 27. Staff

25. **Soccer, Speedball, and Basketball.** I. 1 Hr. Fundamentals and practice in playing soccer, speedball, fieldball, and basketball. Miss Bason

26. **Minor Sports.** II. 1 Hr. Fundamentals and practice in playing badminton, bowling, croquet, deck tennis, horseshoes, paddle tennis, shuffleboard, table tennis, and disco. Miss Hurst

27. **Swimming, Diving, and Life-saving.** I. 1 Hr. Elementary and advanced strokes, standard dives, and life-saving. Miss Griffin

28. **Modern Dancing.** I. 1 Hr. Techniques of modern dance, methods of teaching different age groups, and a knowledge of the historical background of dancing from primitive times to the present. Mrs. Matthews

57. **Gymnastics.** I. 1 Hr. The Swedish, German, and Danish gymnastic systems which have been practiced in the United States, studied as background for an understanding of the modern program. Staff

58. **Stunts, Tumbling, and Heavy Apparatus.** II. 1 Hr. Stunts, tumbling, and pyramid building suitable for elementary, junior, and senior high-school girls. Knowledge of and skill in heavy apparatus is included. Miss Bason

59. **Folk Dancing.** I. 1 Hr. The history of Folk Dancing, knowledge of fundamentals, and learning of dances from all countries. Miss Hurst

60. **Archery and Tennis.** II. 1 Hr. Fundamentals and practice in archery and tennis and methods of teaching these activties. Miss Hurst

### UPPER DIVISION

125. **Swimming Technique and Water Safety.** I. 1 Hr. Technique of instruction and practice in its application; safety needs and devices. Miss Griffin

126. **Clog and Tap Dancing.** II. 1 Hr. Fundamentals and practice in clog and tap dancing. Miss Hurst

127. **First Aid.** I. 1 Hr. Standard and Advanced First Aid as outlined by the American Red Cross plus the Special Course which is given by a representative from National Red Cross Headquarters. Miss Hurst

128. **Soft Ball, Field, and Track.** II. 1 Hr. Fundamentals and practice in soft ball, selected lead-up games, adapted field and track activities for girls. Miss Bason

157. **Graded Games and Lead-up Games.** I. 1 Hr. Games for all ages which may be used in the home, school, playground, and gymnasium, and lead-up games for the various sports. Miss Hurst

158. **Social Dancing and Festivals and Pageants.** II. 1 Hr. Technique of social dancing and methods of teaching it. A study of festivals and pageants as used in schools and recreation centers. Staff

159. **Field Hockey and Basketball Technique.** I. 1 Hr. Fundamentals and practice in field hockey. Technique and practice in teaching and officiating basketball. Miss Bason

160. **Seminar.** II. 1 Hr. The problems of curriculum construction, the testing program, girls' athletics, organization of intramural activities, play days, etc. Officiating in intramural games. Staff

NOTE: An opportunity is provided for individual specialization in sports, swimming, or dancing, in addition to the activities of the block program. If students are especally interested in specialization in dancing, their course will include some allied subjects such as history of art, pageantry, dramatics.

## Theory Courses in Physical Education

### LOWER DIVISION

#### For Men and Women

#### Physical Education

*74. **Anatomy.** II. 4 Hrs. Required of Physical Education majors. Dr. Morris

77. **History of Physical Education.** I. 2 Hrs. The development of physical education from early civilization to the present time, giving attention to the early Greek and Roman periods, the German, Swedish, and Danish systems, and developments in the modern programs in the various countries. Miss Griffin

#### Health Education

1. **Personal Health in Campus Situations.** I. 2 Hrs. Actual daily health problems; practices making for physical and mental well-being on the part of University students. Dr. Morris

2. **Personal and Community Hygiene.** II. 2 Hrs. Those phases of hygienic living which should be understood by all college students. Special emphasis placed on the personal aspects of hygiene. This course may not be elected as a substitute for Phys. Ed. 180. Mr. Semon

#### Recreation

1. **Management and Direction of Playgrounds.** I. 2 Hrs. Arranged to prepare the student in physical education for the direction and supervision of playgrounds in municipal recreation programs. Mr. Tork

*Accepted by the State Department of Education as a cognate in the field of biology.

2. **Management and Direction of Social Centers.** II. 2 Hrs. Arranged to prepare the student in physical education for the direction and supervision of social centers in the municipal recreation program. Mr. Tork

3. **The Camping Movement.** I. 2 Hrs. A course in training camp counselors. The essentials embraced are: history of organized camps, aims, camp sites and equipment, activities, vocational opportunities, the requirements and qualifications of personnel. Mr. Smith

## UPPER DIVISION

### For Men

150. **Individual Gymnastics.** II. 3 Hrs. The diagnosis of abnormal cases found in the classroom including overweight, underweight, post-operative, postural, and flat-foot cases, with the prescription of activities for their correction. Staff

### For Women

151. **Club Leadership for High-school Girls.** II, SII. 2 Hrs. A study of the Girl Scouts, Camp Fire Girls, Girl Reserves, and other movements which are designed as character-building organizations for adolescent girls. Special attention will be given to methods of leadership based on adolescent psychology. Miss Griffin

166. **Individual Gymnastics.** II. 3 Hrs. Analysis of normal posture and individual deviations with treatment of the latter by physical activity and massage. The course will cover personal health problems that can be treated by exercise. Miss Bason

167. **Rhythmic Form and Analysis.** I. 2 Hrs. Designed to give an understanding of the nature and scope of rhythm in the physical education program. Opportunity is offered for practice in the analysis of dance steps and the building of dance patterns. Mrs. Matthews

### For Men and Women

175. **Kinesiology.** I. 3 Hrs. The principles of the mechanics of bodily movements in relation to the anatomical structure. Miss Bason

181. **Safety Education.** II. 2 Hrs. Safety needs and practices in the home, on the highways and streets, in schools and on playgrounds, and in industry. Educational procedures and programs of education at various levels are presented. Miss Griffin

277. **Administration of Physical Education.** II and SI. 2 or 3 Hrs. The modern theories in physical education; guiding principles in the organization and administration of physical education; and the objects, content, and materials of activities in the gymnasium and on the playground. Mr. Tork

### Health Education

101. **School Health Problems.** I. 2 Hrs. Problems facing teachers and school administrators in the school day. Mr. Semon

103. **Administration of School Health.** I. 2 Hrs. Ways and means by which the best principles and practices of health education may be applied to the public-school situation; importance of health education in the total pupil experiences in public education. Staff

**180. Public-school Health.** I, II. 2 Hrs. This course in hygiene meets the general requirements for state teachers' certificates. (Not open to major physical education students.) Dr. Morris

**Recreation**

**101. Administration of Public Recreation.** II. 2 Hrs. Relation of public recreation to public education; problems of administration. Mr. Tork

## The Graduate Curriculum in Physical Education

*(Leading to the Degree of Master of Science)*

Candidacy: The candidate must hold the degree of Bachelor of Science in Physical Education or its equivalent from an approved college. The equivalent will be determined by the committee on graduate courses of the School of Physical Education and Athletics. Additional hours may be required of students who have had inadequate undergraduate preparation.

Course Requirements: No less than 30 hours (including a thesis) of graduate work, approved by the Graduate Council, the advisers, and the committee on graduate courses of the School of Physical Education and Athletics must be taken in West Virginia University. At least 12 hours (exclusive of the thesis) shall be in physical education, and the remaining hours may be in related subjects or other fields. One-third of the hours required for the degree must be in courses numbered 300 or above.

NOTE: Courses marked by an asterisk (*) are required of all candidates for the Master of Science degree.

**224. Physiological Analysis of Activities.** I and SII. 2 Hrs. Analysis of physiological changes which occur in the body during exercise. Staff

**243. National Youth Service Organizations and Their Contribution to Health and Physical Education and Recreation.** SI. 2 Hrs. This course will discuss the organization and program of national agencies and their potential contributions to the school program in health education, physical education, and recreation. Miss Griffin and Staff

**271. Administration of Camps and the Preparation of Camp Counselors.** II and SI. 2 Hrs. The principles involved in the modern camping program and the methods of organization and administration of organized camps. A special problem in administration or program will be undertaken. Mr. Tork

**277.* Administration of Physical Education.** II and SI. 2 or 3 Hrs. The modern theories in physical education; guiding principles in the organization and administration of physical education; and the objectives, content and materials of activities in the gymnasium and on the playground. Mr. Tork

**281. Safety Education.** II, SI. 2 Hrs. A study of the modern safety education program and its place in the public school day. Various educational methods which will make for the reduction of common accidents in factories, the home, the school, the street, camps, and playgrounds will be considered. Term paper required. Miss Griffin

**282. Administration of Public Recreation.** I and SI. 2 Hrs. The modern concept of the public recreation program and its contribution to the leisure time problem. A special problem in organization or program will be undertaken. Staff

**287. History of Physical Education.** I and SI. 2 Hrs. The development of physical education from early civilization to the present time with particular emphasis on its relation to general education and other world movements. Miss Griffin

**290. Adaptation and Evaluation of Activities in Physical Education.** II and SI. 2 Hrs. The formulation of criteria for continuous curriculum revision in accord with educational principles and in recognition of individual needs, abilities, and interests. A special problem will be undertaken. Miss Griffin

**292. Principles and Program of Physical Education in the Elementary Schools.** SI. 2 Hrs. Relation of physical education in the elementary schools to present-day educational philosophy and procedures. Analysis of courses of study of outstanding city and state departments as a background for formulating tentative curricula for use in local situations. Mr. Tork

**293. Organization and Administration of Intramural Sports for Men and Women.** SI. 2 Hrs. A critical analysis of intramural sports programs with a view to their justification from the standpoint of objectives and of contribution to the general welfare of the students participating. Problems of organization and administration of programs for men and women on the secondary and college levels. A term paper of practical value will be required. Staff

**294. Modern Trends and Principles of Physical Education.** SI. 2 Hrs. Critical analysis of current problems in the field of physical and health education and their solution in the light of sound principles. Recent trends and probable growth of responsibilities will be surveyed. Mr. Tork

**300.* Thesis.** I, II, SI, and SII. 2 to 4 Hrs. Staff

**378.* Problems in Health and Physical Education.** I, II, SI, and SII. 2 Hrs. The solution of selected problems in health and physical education. Staff

**389.* Tests in Health and Physical Education.** II, SI, and SII. 2 Hrs. A study of anthropometric and functional tests in health and physical education. Staff

**390.* Seminar: Individual Research Problems.** I, II, SI, and SII. 1 to 4 Hrs. Designed to permit a student to pursue an individual research problem. Staff

# Part IV

# Degrees Conferred by the University

## DEGREES CONFERRED IN 1943-44

The following is a list of degrees conferred by the University during the year 1943-44. Degrees conferred on August 27, 1943, are indicated by an asterisk (*); those conferred on September 18, 1943, by a double asterisk (**); and those conferred on January 22, 1944, by a triple asterisk (***). All other degrees were conferred on Commencement Day, May 29, 1944. Persons known to be in one of the Armed Forces are indicated by a dagger (†).

### BACHELOR OF ARTS

| | | |
|---|---|---|
| Priscilla Allen | English | Morgantown |
| Mary Kathryn Amos | English | Fairmont |
| Eudora Catherine Andrews | Political Science | Charleston |
| Elizabeth Ann Ball | English | New Martinsville |
| James William Banks | Pre-Medicine | Raleigh |
| Harry Levon Beard | History | Berkeley Springs |
| †***Ralph Ephraim Berman | Pre-Medicine | Beckley |
| *James Vernon Bertschy | Pre-Medicine | Wheeling |
| ***Ruth Josephine Brown | French | Short Creek |
| *William Owen Burchinal | Public Speaking | Smithfield, Pa. |
| Cora Margaret Burdette | Botany | Ronceverte |
| Lillie Louise Chapman | Chemistry | Chester |
| ***Mary Ann Cipolloni | Zoology | Masontown |
| *Mary Dorcas Clark | Pre-Medicine | Hopwood, Pa. |
| †***Owen Richard Colan | Political Science | South Charleston |
| Jane Katherine Collinson | French | Connellsville, Pa. |
| †***Edward Franklin Counts, Jr. | Pre-Medicine | South Charleston |
| *Patricia Gahagan Cummins | English | Wheeling |
| Elizabeth Lee Dakan | Zoology | Bridgeport |
| *George Paul Daurelle, Jr. | Pre-Medicine | Parkersburg |
| *Albert Davne | Pre-Dentistry | Newark, N. J. |
| James Wilson Dodd | Pre-Medicine | Charleston |
| Nancy Ann Dunkin | Economics | Bridgeport |
| Jessie Henshaw Fiedler | Public Speaking | Morgantown |
| Hector Hiram Filardi | Pre-Medicine | Yauco, P. R. |
| Margaret Jane Gibbs | English | Lakewood, Ohio |
| Mary June Gilbert | Psychology | Charleston |
| Alvo Guiducci | Pre-Medicine | Masontown, Pa. |
| *Ruth Irene Hall | Public Speaking | Wellsburg |
| *Charles LaVerne Harer | Pre-Medicine | Williamsport, Pa. |
| *Helen Louise Harmon | Sociology | Charleston |
| †***Russell Lawrence Heinlein | Pre-Medicine | Sistersville |
| †*Ernest Delbert Helmick | Pre-Medicine | Benbush |
| ***Samuel Hopfer | Physics | Uniontown, Pa. |
| Wanda Eileen Huffman | Public Speaking | Nallen |

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|---|---|---|
| *Hal Standish Johnson | Pre-Medicine | Berwind |
| Mary Alice Johnson | Spanish | Fairmont |
| Juliet Anne Kauffelt | Spanish | Huntington |
| *Robert Scott Kent | Political Science | Thomas |
| *Albert Edward Klebe, Jr. | Political Science | Wheeling |
| Mary Nan Knapp | History | Morgantown |
| Elizabeth Louise Koehler | Psychology | Morgantown |
| *Lawrence Kondratick | Economics | Weirton |
| Daphne Saville Kulakowski | English | Romney |
| Florence Elizabeth Kunst | Pre-Medicine | Grafton |
| Norma Lee Layne | Public Speaking | Gauley Bridge |
| Margaret Ann Leach | Art | Morgantown |
| †***George Lawton Lemon | Pre-Medicine | Lewisburg |
| †***Sherman Brance Lindsey | Pre-Medicine | Philippi |
| *Dorothy Ann Llewellyn | Pre-Medicine | Morgantown |
| †***William Richard McCune | Pre-Medicine | Gassaway |
| Lula Martin McInteer | Psychology | Morgantown |
| ***Hubert Ernest Martin | Pre-Dentistry | Morgantown |
| Mary Bernice Maston | Public Speaking | Reynoldsville |
| †***James Dolan Mathias | Pre-Medicine | Mathias |
| Margaret Ellen Matters | English | Athens, Ohio |
| George Willis May | Pre-Law | Fairmont |
| Elfrieda Jane Mays | English | Paden City |
| Elizabeth Maysilles | Public Speaking | Berkeley Springs |
| Dorothea Francine Morris | Public Speaking | Morgantown |
| †***George Lyle Morris, Jr. | Pre-Medicine | Ameagle |
| †***Marvin David Orrahood | Pre-Medicine | Clarksburg |
| Mary Caroline Orth | English | Charleston |
| Patricia Chapman Orton | English | Morgantown |
| ***Eloise Freda Parsons | Public Speaking | Terra Alta |
| *Evelyn Mead Parsons | Zoology | Beckley |
| Winona June Parsons | English | Morgantown |
| Margaret Ellen Pell | Public Speaking | Kingwood |
| *Helen Mary Placatoris | Public Speaking | Morgantown |
| ***William Warren Powell | Public Speaking | Grant Town |
| Edward Burl Randolph | Pre-Medicine | Lost Creek |
| ***Rosemary Ann Raney | Library Science | New Martinsville |
| Phyllis Damon Reynolds | Psychology | Morgantown |
| Louise Amelia Robinson | History | Clarksburg |
| ***Betty Rolland | Sociology | Clarksburg |
| †John Ransel Romine, Jr. | Political Science | Clarksburg |
| June Ashworth Scott | English | Welch |
| Vance Evans Sencindiver | Pre-Law | Martinsburg |
| ***James Monroe Sinnett | Pre-Medicine | Spencer |
| †***Joseph Thomas Skaggs | Pre-Medicine | Montgomery |
| Virginia Aloise Skaggs | Chemistry | Nitro |
| ***Sylvia Ruth Sloan | Economics | Dunbar |
| *Elizabeth Mae Smith | Sociology | Beckley |

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|---|---|---|
| Harriett Smith | History | Charleston |
| ***Margaret Louise Smith | Spanish | Wheeling |
| †Thomas Steven Smith, Jr. | Political Science | Dunbar |
| Betty Lee Snyder | Public Speaking | Morgantown |
| Alice Louise Spiker | French | Morgantown |
| ***Nancy Jeanne Sproles | Zoology | Switchback |
| †***Fred Stansbury, Jr. | Pre-Medicine | Glen Daniel |
| Ida Ann Stevens | Spanish | Masontown, Pa. |
| †***Arthur Waldo Stoolfire | Pre-Medicine | West Alexander, Pa. |
| *Paul Fegan Storck | Economics | Wellsburg |
| Jean Claire Taylor | English | Morgantown |
| †***George Frederick Thiers | Pre-Medicine | Hollidays Cove |
| †Edwin Timbers | Economics | Charleston |
| Helen Frances Toth | Library Science | Filbert |
| Clarence Vincent Townsend | Pre-Medicine | Martinsburg |
| Marvin Sylvan Tuchman | Pre-Medicine | New York, N. Y. |
| Mary Kathryn Van Gilder | Zooolgy | Morgantown |
| Spero Volakis | Chemistry | Weirton |
| *William Nelson Walker | Pre-Medicine | Bridgeport |
| Margaret Ann Wallace | History | Wheeling |
| †William Harper Weiss | Pre-Medicine | Fairmont |
| *Benjamin James Wilson | Pre-Medicine | Grafton |
| Geneva Anne Zando | Zoology | Williamson |
| †***John George Zekan | Pre-Medicine | Brownton |
| Joseph Lawrence Zingale | Pre-Medicine | Welch |

**BACHELOR OF SCIENCE (Business Administration)**

| | |
|---|---|
| Betty Jane Board | Charleston |
| Mildred Louise Fimple | Fairmont |
| Emma Jane Freshwater | Follansbee |
| Earl Smith Goodwin | Jane Lew |
| Shirley Frances Janis | New York, N. Y. |
| Joseph Sassin Joseph | Shinnston |
| Robert Conrad Kurner | Wheeling |
| Harold Abraham Lee | Morgantown |
| Florence Smith McCarthy | Alderson |
| ***William Julius Melenric | Charleston |
| ***Mary Belle Polley | Beckley |
| ***Harold Gordon Robinson II | Dunbar |
| †***Howard Cole Stewart | Fairmont |
| ***Samuel Steven Tiano | Haywood |

**BACHELOR OF SCIENCE (Chemistry)**

| | |
|---|---|
| *Gordon Duane Brown | Charleston |
| †Charles Glenn Hackney | Morgantown |
| Eleutherios Ted Houvouras | Huntington |
| Myron P. Jaffe | Cleveland Heights, O. |
| †Robert Martin Poske | Parkersburg |
| Virginia Catherine Stout | Grafton |
| Harry Williams | Richwood |

## BACHELOR OF SCIENCE (Social Work)

Theresa Caroline Brown — Princeton
Freida Deitz — Princeton
Ava Marguerite Holmes — Raleigh
Marjorie Ann Morrison — Sutton
Jo Ann Peters — Bishop, Va.
Genevieve Constance Rutecki — Buffalo, N. Y.
Nancy Morris Sanders — Morgantown
Margaret Eleanor Shaffer — Madison
Mary Caroline Throp — Wheeling

## BACHELOR OF SCIENCE

†***Kenneth Dale Bailey — Clarksburg
A. B., West Virginia University, 1943

***Roberta Hall Benchea — Weston
A. B., West Virginia University, 1942

†***Reece Richard Boone, Jr. — Smithers
A. B., West Virginia University, 1943

***Alvin Lafayette Cain — Fairmont
B. S., Bethany College, 1941

†***Robert L. Chamberlain — Parkersburg
B. S., West Virginia Wesleyan College, 1942

†***John Wallace Compton, Jr. — Ronceverte
A. B., West Virginia University, 1943

Ross Preston Daniel — Beckley

***Lois Fox Fryer — Smithburg
A. B., West Virginia University, 1943

†***Paul S. Gotses — Fairmont
A. B., West Virginia University, 1943

†***George Douglas Hayden — Huntington
A. B., Marshall College, 1943

†***Alfred Joseph — Whitesville

†***Edwin Julian Kamons — Parkersburg
A. B., West Virginia University, 1942

†***Frederick Vivan Lilly — Montgomery
A. B., West Virginia University, 1943

†***Frank Kenneth McFarland — Elm Grove
A. B., West Virginia University, 1943

†***Franklin William Mallamo — Fairmont
A. B., West Virginia University, 1943

†***Samuel Marovich — Weirton
A. B., West Virginia University, 1943

†***John James Marra — Everettville
A. B., West Virginia University, 1943

†***Elliot M. Namay — Charleston
B. S. Pharm., West Virginia University, 1944

†***A. James Paine — Parkersburg
A. B., West Virginia University, 1942

†***Robert LaRue Parsons — Davis
A. B., West Virginia University, 1943

†***William Harry Robison — Morgantown
A. B., West Virginia University, 1943

†***Russell Dill Squires — Fairmont
A. B., West Virginia University, 1943

†***Archie C. Thompson — Charleston
A. B., West Virginia University, 1943

†***Harvey Johnston Thompson, Jr. — Princeton
A. B., West Virginia University, 1942

†***Eldon Bryant Tucker, Jr. — Morgantown
A. B., West Virginia University, 1942

†***David Earl Yoho — Moundsville
A. B., West Virginia University, 1942

## BACHELOR OF LAWS

Larry Wilson Andrews — Charleston
A. B., West Virginia University, 1943

Dorothy Virginia Brown — Princeton
A. B., West Virginia University, 1942

†***Robert Louis Holland — Morgantown
A. B., West Virginia University, 1939

†Dewey Benjamin Jones — Advent

***William Ramsey Laird — Montgomery

***James Milton McClaugherty — Princeton
A. B., West Virginia University, 1939

## BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

Frank Augustine — East Rainelle
***Walter Wesley Baker — South Charleston
**Jackson Boylston Browning — Logan
***William James Carney — Wheeling
†***Camden Arthur Coberly — Parkersburg
Hubert Clair Gainer — Spencer
***Alfred Freddie Galli — Morgantown
***Jack Haslam Gregory — Moundsville
Wade Eckes Hall — Charleston
***Francis William Hank — Morgantown
**Paul James Henry — Wellsburg
***Howard Maloy Jamison — Fairmont
***George William Minor — Morgantown
***Harold H. Stotler — Martinsburg
***Dalton Tanner Taylor — Hurricane
***Hayward Glen Taylor — Pennsboro
***John Scott Withers — Buckhannon

## BACHELOR OF SCIENCE IN CIVIL ENGINEERING

***Willis Davidson Barlow — Beverly
***Jerry Cameron Burchinal — Point Marion, Pa.
***Paul Gould Dean — Buckhannon
†***Adrian Ernest Hardman — Morgantown
Hiram Gordon Larew — Independence
***Joseph Paul Marrara — Kingwood
***Donald Davis Strench — Upper Darby, Pa.
***Henry Allen Thrasher — Clarksburg
***Ronald Harold Webster — Babylon, N. Y.

## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

†**John Carter Amos — Fairmont
***William Fred Dimmick — Saint Marys
***Robert Wardwell Findley — Elkins
Perry Floyd Holstein, Jr. — Charleston
***Everett Lee Keener — Grafton
***John F. Laughlin, Jr. — Morgantown
Frank Joseph Liberatore — Morgantown
Gaver Marcum Powers — Beckley
**Alston Lee Reed — Newburg
**Thomas Russell Riggs — Sistersville
**Cecil Edward Shay — Star City
***William Jacob Shock — Clarksburg
Donald Randolph Stelle — Martinsburg
John Richard Watson — Martinsburg

## BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

**James Grant Couch — Charleston
***William Henderson Gardner — Charleston
**James Leon Jenkins — Charleston
***Jack Richard Linville — Wheeling
**Joseph Michel Lombardo — Kimball
†Thomas Joseph McCarthy, Jr. — Hinton
†***Paul Ross Muffly — Morgantown
***Frank Britton Mumma — Charleston
***John J. Murray, Jr. — Cabin Creek
***Jack Dalton Rowe — Stotesbury
John Julius Wargacki — Weirton

## BACHELOR OF SCIENCE IN AGRICULTURE

***Russell Gail Beall — Burnt House
*George Emmett Cox — Saint Marys
***Arthur Clinton Dodd — Alderson
†Dean Crow Dowler — Moundsville
Clyde William Hibbs — Independence
***Edward Shelby Love, Jr. — Huntington
***Norman Hugh Robertson — Martinsburg

## BACHELOR OF SCIENCE IN HOME ECONOMICS

Barbara Louise Bailey — Wheeling
Inez W. Beeghly — Brandonville
Emily Jean Bell — Sistersville
Betty Jane Blackmore — Chester
Martha Ellen Bolyard — Morgantown
Sarah Mae Clovis — Hundred
Mabelle Grace Cokeley — Harrisville
*Martha Jane Coyner — Buckhannon
Ethel Mae DeBolt — Fairview

| | |
|---|---|
| Teresa Eilene Dowell | Ravenswood |
| *Gene Jeannette Falbo | Everettville |
| ***Yvonne Gallaher | Morgantown |
| Ruby Agnes Groves | Maysville |
| ***Barbara Knight Grow | Fairmont |
| Jane Courtney Grow | Williamstown |
| Naomi Jean Gump | Cameron |
| Mary Elizabeth Guy | Charleston |
| Elizabeth Parker Hanlin | Mount Storm |
| Katherine Ann Heil | Wheeling |
| Janis Hugh Horne | Delbarton |
| ***Blanche Fern Isiminger | Cameron |
| Mary Leah Judy | Circleville |
| ***Mary Ann Lewis | Saint Albans |
| Laila E. Lingamfelter | North Mountain |
| ***Mary Workman Loar | Bridgeport |
| ***Frances Ross MacIver | Tunnelton |
| Mary Jane Marquette | Elkins |
| Mary Maxine Monroe | Cameron |
| ***Emma Jane Murphy | Clay |
| *Edith Camden Newlon | Tunnelton |
| Grace Christina Pharr | Morgantown |
| *Margaret Cole Pyles | Independence |
| ***Orpha Alice Reidler | Tunnelton |
| Marguerite Rice | Dunbar |
| ***Elizabeth Ann Roberts | Elizabeth |
| Marion Robertson | Larchmont, N. Y. |
| Mary Elizabeth Jane Samuels | Pittsburgh, Pa. |
| Margaret Susanna Sharps | Newburg |
| Carrie Louise Sinsel | Flemington |
| ***Dora Lee Smith | Beckley |
| Dorothy Ruth Treutle | Rowlesburg |
| Geraldine Lenore Vickers | Elkview |
| Jean E. Ward | Clay |
| *Marguerite Kathryn Weese | Petersburg |
| ***Virginia Lee Williams | Morgantown |

## BACHELOR OF SCIENCE IN FORESTRY

| | |
|---|---|
| William Franklin Strunk | Morgantown |

## BACHELOR OF SCIENCE IN EDUCATION

| | |
|---|---|
| Elma Adalis | Weirton |
| ***Mary Sinclair Brown | Grafton |
| *Freda Maxine Dodge | Terra Alta |
| Freda Marie Fansler | Davis |
| Nell Spotswood Fleu | Fayetteville |
| Dorothy Mable Holsberry | Belington |
| ***Jane Catherine Homan | Keyser |
| Virginia Louise Humes | Follansbee |

*Betty Louise Kessel — Ripley
Diane H. Margolis — Masontown, Pa.
*Margaret Agnes Moran — Dawes
***Elma Price Rowan — Morgantown
Nada May Seabright — Wheeling
***Bette Hall Shahan — Morgantown
*Ethna Elinor Snider — Clarksburg
Edward Vincent Thrash — Sandyville
***Gwendolyn Mae Tucker — Morgantown
Susan Parsons Welton — Moorefield

### BACHELOR OF SCIENCE IN PHARMACY

***James Wilmer Backus — Oak Hill
***Wiliam Francis Goldsmith — Clarksburg
†***Elliot M. Namay — Charleston
B. S., West Virginia University, 1944
***Paul Eugene Shutts — Vienna
*Donald Paul Trenton — Petersburg
*Frank Owen Williamson — Williamstown

### BACHELOR OF MUSIC IN PUBLIC SCHOOL MUSIC

***Frances Elizabeth Berry — Morgantown
Anne Kathryn Carper — Charleston
Helen Elizabeth Fisher — Dunbar
***Pearl Hazel Forbes — Morgantown
***Louise Kirk Galasso — Morgantown
Kathleen Janet Guerrieri — Morgantown
Marjorie Ann Hall — Weston
Kathryne Anne Light — Stotesbury
Jo Clare Miller — Ripley
*Elizabeth Udell Moore — Widen
*Helen Virginia Rhodes — Hollidays Cove
Ruth Leola Selby — Morgantown

### BACHELOR OF MUSIC IN PIANO

Margaret Emeline Fogle — Morgantown

### BACHELOR OF MUSIC IN VOICE

Lee Eleanor Alfred — Shinnston

### BACHELOR OF SCIENCE IN ENGINEERING OF MINES

**William Magann Barker — Logan
***William Vincent Graham — Clarksburg
**Douglas Henry Harnish, Jr. — Clarksburg
***Thomas William Howard — Mount Hope
**William Hackett Noone, Jr. — Longacre
Joseph Franklin Showalter, Jr. — Parkersburg
**Ronald Buren Talbert — Widen
***David Abraham Zegeer — Charleston

### BACHELOR OF SCIENCE (Mining Engineering Electives)

Joseph Franklin Showalter, Jr. — Parkersburg

### BACHELOR OF SCIENCE IN PHYSICAL EDUCATION

***Elizabeth Lee Aronson — Davis
Susan Marie Corkrean — Williamsburg
***Virginia Mae Darnell — Ronceverte
Mary Cecilia Goffredo — War
Lorena Sedonia Heck — Farmington
***Marie Louise Meyer — White Plains, N. Y.
Pauline Moore — Philippi
***Marlyn Gene Neptune — Mannington
Mildred Ferrell Ostrye — Spencer
Sadie Imovee Roby — Morgantown
*Jeanne Rodgers White — Webster Springs
Nina Fay Wyatt — Weirton

### BACHELOR OF SCIENCE IN JOURNALISM

Natalie Barnard — Morgantown
Elizabeth Ann Bishop — Scarbro
Barbara Joan Borsos — Morgantown
Mary Alice Eades — Alderson
Margaret Lee Jackson — Charleston
Lois Elizabeth Keith — Harrisville
*Mary Louise Loudenslager — Mannington
***Frances Marie Moose — Petersburg, Va.
Patrick Aloysius Pallotto — Richwood
Joan Pyle — Sistersville
Huldah Snoderly — Fairmont

### MASTER OF ARTS

*Brooks Foster Addair — Education — Beckley
A. B. in Education, Concord State Teachers College, 1938

*Emma Frances Alderson — History — Charleston
A. B., West Virginia University, 1926

*Orval James Anderson — English — Rowlesburg
A. B., West Virginia University, 1941

*Grace Muncy Barnes — Education — Bradshaw
A. B. in Education, Marshall College, 1940

*Paul Hunter Collins — Education — Frank
A. B. in Education, Glenville State Teachers College, 1939

*Inez West Cooper — History — Williamsburg
A. B. in Education, Marshall College, 1936

*Marjorie Counselman — Education — Wellsburg
B. S. Ed., West Virginia University, 1940

*Evelyn Vivian Davies — Education — Morgantown
B. Mus. in Violin, West Virginia University, 1940

*Mary Brownie Duke — English — Martinsburg
A. B. in Education, Shepherd State Teachers College, 1939

*William Van Dunkle — Education — Charleston
A. B. in Education, Shepherd State Teachers College, 1940

*Walter Scott Dunlop — Education — Rupert
A. B. in Education, Marshall College, 1936

*Sister Teresa Marie Ebbert — Education — Wheeling
A. B., Catholic Sisters College of the Catholic University of America, 1935

*Thomas David Gorby — Education — Fort Myers, Florida
B. S. Ed., West Virginia University, 1933

*Jessie Ethel Haddix — Education — Philippi
A. B. in Education, Fairmont State Teachers College, 1939

*Stanley Price Hawse — Education — Wardensville
A. B. in Education, Shepherd State Teachers College, 1938

*Mavis Andree Mann — Political Science — Beckley
A. B., West Virginia University, 1942

†Eva Beauty Marchitelli — English — Welch
A. B. in Education, Concord State Teachers College, 1936

*Gertrude Nevada Miller — Education — Morgantown
B. S. Ed., West Virginia University, 1941

*Mildred Holt Morrison — Education — Morgantown
A. B. in Education, Fairmont State Teachers College, 1936

*Ota Harris Porter — Education — Charleston
A. B., University of Louisville, 1921

*Edith Hulin Reed — English — Charleston
A. B., Duke University, 1925

*Peter Melford Rider — Education — Rivesville
A. B. in Education, Fairmont State Normal School, 1927

*Alice Valotto Semon — Education — Morgantown
B. S. Ed., West Virginia University, 1938

*Sister M. Bernice Sterbutcel — Education — Wheeling
A. B., Catholic Sisters College of the Catholic University of America, 1936

Charles R. Walker, Jr. — Education — Huntington
A. B., Marshall College, 1942
B. S., Union College, 1943
B. S. Ed., Union College, 1943

*Hansel Earl Warner — Education — Charleston
A. B. in Education, Concord State Teachers College, 1932

*Eugenia Westfall — History — Charleston
A. B., West Virginia Wesleyan College, 1927

*Klayde Spaur Wolfe — Education — Grafton
A. B., West Virginia University, 1923

## MASTER OF SCIENCE

*Ural Guy Bee — Animal Husbandry — Fairmont
B. S. Agr., West Virginia University, 1942

†***Robert Cullings Meade — Agricultral Chem. — Marshall, Minn.
B. S., University of Minnesota, 1942

***Louise Charlotte Monack — Chemistry — Charleroi, Pa.
A. B., West Virginia University, 1942

Gaines Whaley Monk — Physics — Morgantown
A. B., West Virginia University, 1942

***Lewis Glenn Stark — Horticulture — Petersburg
B. S., University of Missouri, 1924

*John Ernest Stutzman — Zoology — Shepherdstown
A. B. in Education, Shepherd State Teachers College, 1940

## MASTER OF SCIENCE (Home Economics Education)

*Eunice Stewart Cook — Home Ec. Education — Charleston
A. B. in Education, Concord State Teachers College, 1943

*Jeanne Louise Kenny — Home Ec. Education — Mannington
A. B. in Education, Fairmont State Teachers College, 1935

## PROFESSIONAL CERTIFICATE IN SOCIAL WORK

Jane Patterson Fraser — Morgantown
A. B., West Virginia University, 1940

Helen Louise Harmon — Charleston
A. B., West Virginia University, 1943

# DEGREES CONFERRED 1870-1944
## Bachelor's Degrees

| YEAR | A. B. | B. S. | LL. B. | B. S. C. E. | B. S. M. E. | B. S. E. M. | B. S. E. E. | B. S. Ch. E. | B. S. Ind. Ed. | B. S. Agr. | A. B. in Law | Ph. B. | M. D. | D. V. | B. S. H. E. | Ph. C. | Ph. G. | B. Mus. | B. S. Ed. | B. S. Phys. Ed. | B. S. Phar. | B. S. For. | B. S. Journ. | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1870 | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 1871 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 2 |
| 1872 | 4 | | | | | | | | | | | | | | | | | | | | | | | 4 |
| 1873 | 7 | 6 | | | | | | | | | | | | | | | | | | | | | | 13 |
| 1874 | 7 | | | | | | | | | | | | | | | | | | | | | | | 7 |
| 1875 | 6 | 1 | | | | | | | | | | | | | | | | | | | | | | 7 |
| 1876 | 3 | 6 | | | | | | | | | | | | | | | | | | | | | | 9 |
| 1877 | 7 | 2 | | | | | | | | | | | | | | | | | | | | | | 9 |
| 1878 | 5 | 1 | | | | | | | | | | | | | | | | | | | | | | 6 |
| 1879 | 2 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | 4 |
| 1880 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | 6 |
| 1881 | 3 | | | | | | | | | | | | | | | | | | | | | | | 3 |
| 1882 | 7 | 2 | 1 | | | | | | | | | | | | | | | | | | | | | 10 |
| 1883 | 9 | 3 | 5 | | | | | | | | | | | | | | | | | | | | | 17 |
| 1884 | 3 | 1 | 5 | | | | | | | | | | | | | | | | | | | | | 9 |
| 1885 | 4 | 3 | 6 | | | | | | | | | | | | | | | | | | | | | 13 |
| 1886 | 5 | 1 | 7 | | | | | | | | | | | | | | | | | | | | | 13 |
| 1887 | 2 | 1 | 8 | | | | | | | | | | | | | | | | | | | | | 11 |
| 1888 | 4 | | 9 | | | | | | | | | | | | | | | | | | | | | 13 |
| 1889 | 9 | 3 | 7 | | | | | | | | | | | | | | | | | | | | | 19 |
| 1890 | 6 | 6 | | | | | | | | | | | | | | | | | | | | | | 12 |
| 1891 | 8 | 4 | 14 | | | | | | | | | | | | | | | | | | | | | 26 |
| 1892 | 6 | 2 | 18 | 4 | | | | | | | | | | | | | | | | | | | | 30 |
| 1893 | 12 | 2 | 11 | 5 | | | | | | | | | | | | | | | | | | | | 30 |
| 1894 | 8 | 2 | 23 | 5 | | | | | | 1 | | | | | | | | | | | | | | 39 |
| 1895 | 10 | 4 | 24 | 3 | | | | | | | | | | | | | | | | | | | | 41 |
| 1896 | 8 | 3 | 35 | | 1 | | | | | 1 | | | | | | | | | | | | | | 48 |
| 1897 | 11 | 2 | 44 | 2 | 2 | | | | | | 5 | | | | | | | | | | | | | 66 |
| 1898 | 9 | 5 | 18 | 6 | | | | | | 1 | 5 | 1 | | | | | | | | | | | | 45 |
| 1899 | 12 | 2 | 40 | 7 | 1 | | | | | 2 | | 2 | | | | | | | | | | | | 66 |
| 1900 | 46 | 1 | 9 | | | | | | | 1 | 1 | | | | | | | | | | | | | 58 |
| 1901 | 30 | | 9 | 3 | | | | | | 1 | 2 | | | | | | | | | | | | | 45 |
| 1902 | 25 | | 17 | 8 | 2 | | | | | 2 | | | | | | | | | | | | | | 54 |
| 1903 | 29 | 1 | 10 | 6 | 1 | | | | | 1 | | | | | | | | | | | | | | 48 |
| 1904 | 28 | | 8 | 2 | 2 | | | | | 2 | | | | | | | | | | | | | | 42 |
| 1905 | 20 | 2 | 22 | 4 | 3 | | | | | 2 | | | | | | | | | | | | | | 53 |
| 1906 | 18 | 1 | 17 | 9 | 6 | | | | | 1 | | | 3 | | | | | | | | | | | 55 |
| 1907 | 32 | 3 | 12 | 14 | 4 | | | | | 2 | | | 8 | | | | | | | | | | | 75 |
| 1908 | 20 | 4 | 8 | 6 | 6 | | | | | | | | 7 | | | | | | | | | | | 51 |
| 1909 | 27 | 3 | 2 | 15 | 4 | | | | | 1 | | | 4 | | | | | | | | | | | 56 |
| 1910 | 27 | 6 | 12 | 7 | 5 | | | | | | | | 1 | 2 | | | | | | | | | | 60 |
| 1911 | 27 | 5 | 12 | 6 | 7 | 2 | | | | 3 | | | 4 | 2 | | | | | | | | | | 68 |
| 1912 | 27 | 12 | 17 | 9 | 9 | | | | | 4 | | | 6 | | | | | | | | | | | 84 |
| 1913 | 28 | 9 | 15 | 3 | 1 | | 2 | | | 3 | | | | | | | | | | | | | | 61 |
| 1914 | 28 | 13 | 12 | 4 | 1 | | 5 | | | 12 | | | 1 | | | | | | | | | | | 76 |
| 1915 | 35 | 25 | 14 | 8 | 4 | 1 | 5 | | | 10 | | | | | | | | | | | | | | 102 |
| 1916 | 40 | 8 | 9 | 2 | 4 | 1 | 6 | | | 10 | | | | | | | | | | | | | | 80 |
| 1917 | 62 | 9 | 16 | 5 | 2 | 5 | | | | 19 | | | | | 1 | | 1 | | | | 1 | | | 121 |
| 1918 | 40 | 8 | 5 | 4 | 4 | 1 | 4 | | | 17 | | | | | 2 | | | | | | | | | 85 |
| 1919 | 42 | 11 | 2 | | 1 | 2 | 3 | | | 5 | | | | | 10 | | | | | | | | | 76 |
| 1920 | 79 | 22 | 16 | 11 | 2 | | 5 | | | 14 | | | | | 17 | | 1 | | | | 2 | | | 169 |
| 1921 | 93 | 29 | 12 | 7 | 5 | 5 | 7 | 2 | 1 | 25 | | | | | 9 | | 3 | | | | 1 | | | 199 |
| 1922 | 56 | 48 | 17 | 7 | 5 | 7 | 6 | 3 | | 18 | | | | | 17 | | 10 | | | | | | | 194 |
| 1923 | 125 | 47 | 20 | 4 | 8 | 9 | 9 | 4 | | 41 | | | | | 19 | | 8 | | | | | | | 294 |
| 1924 | 130 | 43 | 18 | 9 | 8 | 2 | 18 | 7 | 1 | 25 | | | | | 25 | | 11 | | | | 1 | | | 298 |
| 1925 | 132 | 53 | 26 | 14 | 3 | 6 | 17 | 6 | | 19 | | | | | 25 | | 6 | | | | | | | 307 |
| 1926 | 169 | 58 | 26 | 19 | 5 | 11 | 9 | 4 | 1 | 22 | | | | | 19 | | 5 | 1 | | | 2 | | | 351 |
| 1927 | 198 | 55 | 37 | 13 | 7 | 10 | 15 | 7 | | 14 | | | | | 32 | | 1 | 1 | | | 4 | | | 394 |
| 1928 | 211 | 48 | 35 | 7 | 3 | 7 | 17 | 4 | | 15 | | | | | 28 | 5 | | | | | 3 | | | 383 |
| 1929 | 230 | 49 | 42 | 8 | 7 | 3 | 15 | 5 | | 21 | | | | | 31 | 13 | | 3 | 2 | | | | | 430 |
| 1930 | 264 | 42 | 42 | 7 | 2 | 3 | 24 | 9 | | 22 | | | | | 22 | 10 | | 10 | 23 | 1 | 1 | | | 482 |
| 1931 | 252 | 42 | 40 | 9 | 4 | 2 | 21 | 7 | 3 | 23 | | | | | 25 | 5 | | 12 | 37 | 6 | 3 | | | 491 |
| 1932 | 209 | 54 | 42 | 11 | 7 | 5 | 17 | 6 | 3 | 24 | | | | | 39 | 4 | | 14 | 25 | 17 | 2 | | | 479 |
| 1933 | 233 | 52 | 45 | 8 | 7 | 4 | 13 | 12 | 5 | 24 | | | | | 33 | 5 | | 8 | 28 | 21 | 1 | | | 499 |
| 1934 | 216 | 48 | 32 | 5 | 5 | 4 | 16 | 10 | 5 | 18 | | | | | 31 | 3 | | | 19 | 26 | 1 | | | 439 |
| 1935 | 202 | 54 | 29 | 7 | 9 | | 20 | 14 | 2 | 21 | | | | | 40 | | | | 34 | 22 | 1 | | | 455 |
| 1936 | 214 | 43 | 44 | 13 | 8 | 7 | 13 | 26 | 3 | 25 | | | | | 32 | 1 | | 6 | 37 | 25 | 6 | | | 503 |
| 1937 | 239 | 23 | 30 | 6 | 5 | 1 | 11 | 21 | 2 | 24 | | | | | 39 | | | 4 | 52 | 14 | 2 | | | 473 |
| 1938 | 249 | 17 | 37 | 7 | 10 | 4 | 15 | 19 | | 17 | | | | | 36 | | | 13 | 49 | 20 | 7 | | | 500 |
| 1939 | 230 | 24 | 35 | 7 | 5 | 5 | 18 | 21 | 1 | 33 | | | | | 33 | | | 15 | 37 | 33 | 11 | 11 | | 519 |
| 1940 | 192 | 30 | 34 | 5 | 19 | 11 | 16 | 31 | | 47 | | | | | 28 | | | 8 | 30 | 29 | 8 | 12 | 14 | 514 |
| 1941 | 218 | 57 | 30 | 3 | 13 | 9 | 15 | 29 | | 50 | | | | | 40 | | | 14 | 48 | 28 | 7 | 11 | 15 | 587 |
| 1942 | 219 | 53 | 28 | 6 | 19 | 5 | 6 | 24 | | 47 | | | | | 42 | | | 17 | 32 | 15 | 13 | 10 | 16 | 552 |
| 1943 | 169 | 54 | 9 | 2 | 9 | 8 | 17 | 23 | | 33 | | | | | 51 | | | 24 | 32 | 18 | 11 | 5 | 12 | 477 |
| 1944 | 108 | 57 | 6 | 9 | 11 | 8 | 14 | 17 | | 7 | | | | | 45 | | | 14 | 18 | 12 | 6 | 1 | 11 | 344 |
| Totals | 5449 | 1283 | 1244 | 351 | 256 | 148 | 379 | 312 | 27 | 730 | 13 | 3 | 34 | 4 | 771 | 46 | 46 | 164 | 503 | 287 | 94 | 50 | 68 | 12,262 |

## Master's Degrees

| YEAR | A. M. | M. S. | LL. M. | M. S. Agr. | M. S. C. E. | M. S. M. E. | M. S. Ch. E. | M. S. E. M. | M. S. E. E. | M. Mus. | Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1873 | 1 | | | | | | | | | | 1 |
| 1874 | 2 | | | | | | | | | | 2 |
| 1875 | 4 | | | | | | | | | | 4 |
| 1876 | 7 | 5 | | | | | | | | | 12 |
| 1877 | 2 | | | | | | | | | | 2 |
| 1878 | 12 | | | | | | | | | | 12 |
| 1879 | 3 | 5 | | | | | | | | | 8 |
| 1880 | 7 | 2 | | | | | | | | | 9 |
| 1881 | 5 | | | | | | | | | | 5 |
| 1882 | 2 | 1 | | | | | | | | | 3 |
| 1883 | 3 | 2 | | | | | | | | | 5 |
| 1884 | 3 | | | | | | | | | | 3 |
| 1885 | 3 | | | | | | | | | | 3 |
| 1886 | 9 | 3 | | | | | | | | | 12 |
| 1887 | 3 | 3 | | | | | | | | | 6 |
| 1888 | 5 | 4 | | | | | | | | | 9 |
| 1889 | 4 | | | | | | | | | | 4 |
| 1890 | 1 | 1 | | | | | | | | | 2 |
| 1891 | 2 | | | | | | | | | | 2 |
| 1892 | | | | | | | | | | | |
| 1893 | | | | | | | | | | | |
| 1894 | 1 | | | | | | | | | | 1 |
| 1895 | | | | | | | | | | | |
| 1896 | 1 | | | | | | | | | | 1 |
| 1897 | 1 | | | | | | | | | | 1 |
| 1898 | | | 1 | | | | | | | | 1 |
| 1899 | 3 | | | | | | | | | | 3 |
| 1900 | 4 | | | | | | | | | | 4 |
| 1901 | 3 | | | | | | | | | | 3 |
| 1902 | 4 | 1 | | | | | | | | | 5 |
| 1903 | 4 | | | | | | | | | | 4 |
| 1904 | 4 | | 2 | | | | | | | | 6 |
| 1905 | 2 | | | | | | | | | | 2 |
| 1906 | 2 | | | | | | | | | | 2 |
| 1907 | | | | | | | | | | | |
| 1908 | 1 | | 2 | | | | | | | | 3 |
| 1909 | 6 | | | | | | | | | | 6 |
| 1910 | 2 | | 1 | | | | | | | | 3 |
| 1911 | 3 | | | | | | | | | | 3 |
| 1912 | 1 | | 1 | | | | | | | | 2 |
| 1913 | 2 | | 2 | | | | | | | | 4 |
| 1914 | 1 | | | | | | | | | | 1 |
| 1915 | 2 | 1 | 1 | | | | | | | | 4 |
| 1916 | 5 | | | 1 | | | | | | | 6 |
| 1917 | 5 | | | | | | | | | | 5 |
| 1918 | 1 | 2 | | 1 | 1 | | | | | | 5 |
| 1919 | | | | | | | | | | | |
| 1920 | 4 | 2 | | | | | | | | | 6 |
| 1921 | 5 | 2 | | | | | | | | | 7 |
| 1922 | 11 | 2 | | | | | | | | | 13 |
| 1923 | 13 | 1 | | | | 1 | | | | | 15 |
| 1924 | 15 | 2 | | 2 | | | 1 | | | | 20 |
| 1925 | 14 | 3 | | 3 | 2 | | | | | | 22 |
| 1926 | 21 | 3 | | 6 | | | 2 | | | | 32 |
| 1927 | 27 | 1 | | 5 | | 1 | 1 | 1 | | | 36 |
| 1928 | 30 | 3 | | 5 | | | 1 | 2 | | | 41 |
| 1929 | 36 | 5 | | 3 | | | 1 | | | | 45 |
| 1930 | 64 | 4 | | 7 | | | | 1 | | | 76 |
| 1931 | 39 | 29 | | | 1 | 1 | 2 | | | | 72 |
| 1932 | 33 | 29 | | | 2 | | | 1 | 1 | | 66 |
| 1933 | 46 | 19 | | | 3 | | 2 | 1 | 2 | | 73 |
| 1934 | 51 | 24 | | | | | 1 | | | | 76 |
| 1935 | 62 | 23 | | | | | 4 | | 2 | | 91 |
| 1936 | 65 | 20 | | | 1 | | 1 | | | | 87 |
| 1937 | 76 | 19 | | | | | 2 | | | | 97 |
| 1938 | 94 | 24 | | | | | | | | | 118 |
| 1939 | 119 | 22 | | | 1 | | 1 | | 1 | | 144 |
| 1940 | 110 | 38 | | | | | 8 | | | | 156 |
| 1941 | 132 | 39 | | | | 1 | 4 | 1 | | 1 | 178 |
| 1942 | 125 | 41 | | | | | 3 | | | 2 | 171 |
| 1943 | 71 | 14 | | | | | | | | 1 | 86 |
| 1944 | 28 | 8 | | | | | | | | | 36 |
| Totals | 1,427 | 407 | 10 | 33 | 11 | 4 | 34 | 7 | 6 | 4 | 1,943 |

## Doctor's Degrees

| | Doctor of Philosophy |
|---|---|
| 1902 | 1 |
| 1907 | 1 |
| 1932 | 6 |
| 1933 | 5 |
| 1934 | 3 |
| 1935 | 10 |
| 1936 | 4 |
| 1937 | 2 |
| 1938 | 2 |
| 1939 | 3 |
| 1940 | 4 |
| 1941 | 4 |
| 1942 | 3 |
| 1943 | 3 |
| TOTAL | 51 |

## Professional Degrees

| YEAR | Civil Engineer | Mechanical Engineer | Electrical Engineer | Chemical Engineer | Engineer of Mines | TOTALS |
|---|---|---|---|---|---|---|
| 1889 | 3 | | | | | 3 |
| 1897 | 1 | | | | | 1 |
| 1898 | 1 | | | | | 1 |
| 1909 | | 1 | 2 | | | 3 |
| 1915 | 3 | | | | | 3 |
| 1918 | 1 | | | | | 1 |
| 1920 | 1 | | | | | 1 |
| 1921 | | 1 | | | | 1 |
| 1924 | 1 | | 1 | | | 2 |
| 1928 | | 1 | | | | 1 |
| 1929 | | 1 | | | | 1 |
| 1930 | | | 1 | | | 1 |
| 1932 | 1 | | | | | 1 |
| 1933 | 1 | 1 | | | | 2 |
| 1934 | | | | 1 | | 1 |
| 1937 | | 1 | | | | 1 |
| 1938 | 1 | | 2 | | | 3 |
| 1940 | | | 1 | | 1 | 2 |
| 1941 | | | | | 1 | 1 |
| Totals | 14 | 6 | 7 | 1 | 2 | 30 |

## Honorary Degrees

| YEAR | Doctor of Philosophy | Doctor of Divinity | Doctor of Laws | Doctor of Literature | Doctor of Civil Laws | Doctor of Science | TOTALS |
|---|---|---|---|---|---|---|---|
| 1875 | 1 | | | | | | 1 |
| 1883 | | 2 | 1 | | | | 3 |
| 1885 | | | 1 | | | | 1 |
| 1886 | | | 3 | | | | 3 |
| 1887 | | 1 | | | | | 1 |
| 1888 | 1 | 1 | 2 | | | | 4 |
| 1889 | 1 | 2 | 1 | | | | 4 |
| 1890 | 2 | | 1 | | | | 3 |
| 1891 | 1 | 4 | 1 | | | | 6 |
| 1892 | 1 | 2 | 1 | | | | 4 |
| 1893 | | | 1 | | | | 1 |
| 1894 | 3 | 3 | | 1 | | | 7 |
| 1896 | 1 | 1 | 1 | | | | 3 |
| 1897 | | | 1 | | 1 | | 2 |
| 1919 | | | 15 | | 2 | | 17 |
| 1921 | | | 1 | | | | 1 |
| 1928 | | | 1 | | | | 1 |
| 1929 | | | 3 | | | | 3 |
| 1932 | | | 2 | | | | 2 |
| 1933 | | | 2 | | | | 2 |
| 1934 | | | 1 | | | | 1 |
| 1937 | | | 1 | | | | 1 |
| 1938 | | | 1 | | | 1 | 2 |
| 1939 | | | 1 | 1 | | | 2 |
| 1940 | | | 3 | | | 1 | 4 |
| 1941 | | | 1 | | | | 1 |
| 1942 | | | 3 | | | 1 | 4 |
| Totals | 11 | 16 | 49 | 2 | 3 | 3 | 84 |

# THE CLASSIFIED ENROLLMENT

## *In the Colleges and Schools*

### A. THE SUMMER SESSION, 1944

| | Senior | | | Junior | | | Sophomore | | | Freshman | | | Total | | | Special | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | W | T | M | W | T | M | W | T | M | W | T | M | W | T | M | W | T | M | W | T |
| Agr., For., & H. E. | ..... | 18 | 18 | ..... | 9 | 9 | 1 | 4 | 5 | 1 | 2 | 3 | 2 | 33 | 35 | ..... | 1 | 1 | 2 | 34 | 36 |
| Arts and Sciences | 14 | 25 | 39 | 25 | 35 | 60 | 26 | 29 | 55 | 43 | 23 | 66 | 108 | 112 | 220 | 2 | 6 | 8 | 110 | 118 | 228 |
| Education | 1 | 13 | 14 | 1 | 10 | 11 | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 23 | 25 | ..... | 3 | 3 | 2 | 26 | 28 |
| Engineering | 10 | 1 | 11 | 11 | ..... | 11 | 14 | 1 | 15 | 16 | ..... | 16 | 51 | 2 | 53 | ..... | ..... | ..... | 51 | 2 | 53 |
| Graduate | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 66 | 104 | 170 | 13 | 36 | 49 | 79 | 140 | 219 |
| Journalism | ..... | ..... | ..... | 1 | 3 | 4 | ..... | ..... | ..... | ..... | ..... | ..... | 1 | 3 | 4 | 1 | ..... | 1 | 2 | 3 | 5 |
| Medicine | 26 | 1 | 27 | 27 | 2 | 29 | ..... | ..... | ..... | ..... | ..... | ..... | 53 | 3 | 56 | ..... | ..... | ..... | 53 | 3 | 56 |
| Mines | 1 | ..... | 1 | ..... | ..... | ..... | 1 | ..... | 1 | ..... | ..... | ..... | 2 | ..... | 2 | ..... | ..... | ..... | 2 | ..... | 2 |
| Music | 1 | 6 | 7 | ..... | 2 | 2 | 1 | 3 | 4 | ..... | ..... | ..... | 2 | 11 | 13 | ..... | 2 | 2 | 2 | 13 | 15 |
| Pharmacy | ..... | ..... | ..... | 1 | 1 | 2 | 1 | 2 | 3 | ..... | ..... | ..... | 2 | 3 | 5 | ..... | ..... | ..... | 2 | 3 | 5 |
| Phys. Ed. & Athletics | 1 | 1 | 2 | ..... | 2 | 2 | ..... | 2 | 2 | 1 | 1 | 2 | 2 | 6 | 8 | ..... | ..... | ..... | 2 | 6 | 8 |
| Summer Session Special | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 14 | 16 | 2 | 14 | 16 |
| Sub-total | 54 | 65 | 119 | 66 | 64 | 130 | 44 | 41 | 85 | 61 | 26 | 87 | 291 | 300 | 591 | 18 | 62 | 80 | 309 | 362 | 671 |
| Army Spec. Training Program | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 174 | ..... | 174 | ..... | ..... | ..... | 174 | ..... | 174 |
| Army Spec. Tr. Reserve Program | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 114 | ..... | 114 | ..... | ..... | ..... | 114 | ..... | 114 |
| U. S. Cadet Nurse Corps | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 16 | 16 | ..... | ..... | ..... | ..... | 16 | 16 |
| TOTAL | 54 | 65 | 119 | 66 | 64 | 130 | 44 | 41 | 85 | 61 | 26 | 87 | 579 | 316 | 895 | 18 | 62 | 80 | 597 | 378 | 975 |

### B. THE FIRST SEMESTER (SEPTEMBER TO JANUARY), 1944-1945

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agr., For., & H. E | 8 | 36 | 44 | 4 | 31 | 35 | 13 | 29 | 42 | 25 | 47 | 72 | 50 | 143 | 193 | 2 | 1 | 3 | 52 | 144 | 196 |
| Arts and Sciences | 12 | 55 | 67 | 15 | 76 | 91 | 41 | 145 | 186 | 157 | 227 | 384 | 225 | 503 | 728 | 4 | 38 | 42 | 229 | 541 | 770 |
| Education | 2 | 12 | 14 | 1 | 13 | 14 | ..... | ..... | ..... | ..... | ..... | ..... | 3 | 25 | 28 | ..... | 1 | 1 | 3 | 26 | 29 |
| Engineering | 9 | ..... | 9 | 18 | 1 | 19 | 23 | 3 | 26 | 91 | 2 | 93 | 141 | 6 | 147 | 3 | ..... | 3 | 144 | 6 | 150 |
| Graduate | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 23 | 31 | 54 | 8 | 21 | 29 | 31 | 52 | 83 |
| Journalism | ..... | 9 | 9 | 2 | 9 | 11 | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 18 | 20 | 1 | ..... | 1 | 3 | 18 | 21 |
| Law | 4 | ..... | 4 | 4 | 1 | 5 | 1 | 2 | 3 | ..... | ..... | ..... | 9 | 3 | 12 | 2 | ..... | 2 | 11 | 3 | 14 |
| Medicine | 50 | 3 | 53 | 29 | 1 | 30 | ..... | ..... | ..... | ..... | ..... | ..... | 79 | 4 | 83 | ..... | ..... | ..... | 79 | 4 | 83 |
| Mines | ..... | ..... | ..... | 1 | ..... | 1 | 2 | ..... | 2 | 3 | ..... | 3 | 6 | ..... | 6 | ..... | ..... | ..... | 6 | ..... | 6 |
| Music | 1 | 8 | 9 | 1 | 15 | 16 | ..... | 11 | 11 | 5 | 27 | 32 | 7 | 61 | 68 | ..... | 1 | 1 | 7 | 62 | 69 |
| Pharmacy | 2 | 2 | 4 | 1 | 2 | 3 | 7 | 4 | 11 | 11 | 13 | 24 | 21 | 21 | 42 | ..... | ..... | ..... | 21 | 21 | 42 |
| Phys. Ed. & Athletics | 2 | 12 | 14 | ..... | 9 | 9 | 1 | 16 | 17 | 24 | 21 | 45 | 27 | 58 | 85 | ..... | ..... | ..... | 27 | 58 | 85 |
| Sub-total | 90 | 137 | 227 | 76 | 158 | 234 | 88 | 210 | 298 | 316 | 337 | 653 | 593 | 873 | 1,466 | 20 | 62 | 82 | 613 | 935 | 1,548 |
| Army Spec. Training | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 171 | ..... | 171 | ..... | ..... | ..... | 171 | ..... | 171 |
| Army Spec. Tr. Reserve | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 319 | ..... | 319 | ..... | ..... | ..... | 319 | ..... | 319 |
| U. S. Cadet Nurse Corps | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 20 | 20 | ..... | ..... | ..... | ..... | 20 | 20 |
| TOTAL | 90 | 137 | 227 | 76 | 158 | 234 | 88 | 210 | 298 | 316 | 337 | 653 | 1,083 | 893 | 1,976 | 20 | 62 | 82 | 1,103 | 955 | 2,058 |

## C. THE SECOND SEMESTER (JANUARY TO MAY), 1944-1945

| | Senior | | | Junior | | | Sophomore | | | Freshman | | | Total | | | Special | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | W | T | M | W | T | M | W | T | M | W | T | M | W | T | M | W | T | M | W | T |
| Agr., For., & H. E. | 5 | 29 | 34 | 5 | 32 | 37 | 10 | 29 | 39 | 17 | 50 | 67 | 37 | 140 | 177 | 1 | 2 | 3 | 38 | 142 | 180 |
| Arts and Sciences | 11 | 53 | 64 | 22 | 72 | 94 | 35 | 151 | 186 | 109 | 177 | 286 | 177 | 453 | 630 | 5 | 39 | 44 | 182 | 492 | 674 |
| Education | 2 | 15 | 17 | ..... | 21 | 21 | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 36 | 38 | ..... | 3 | 3 | 2 | 39 | 41 |
| Engineering | 7 | 1 | 8 | 20 | ..... | 20 | 20 | 2 | 22 | 53 | 2 | 55 | 100 | 5 | 105 | 3 | ..... | 3 | 103 | 5 | 108 |
| Graduate | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 37 | 45 | 82 | 6 | 15 | 21 | 43 | 60 | 103 |
| Journalism | ..... | 9 | 9 | 2 | 10 | 12 | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 19 | 21 | 1 | ..... | 1 | 3 | 19 | 22 |
| Law | 4 | ..... | 4 | 3 | ..... | 3 | 6 | 2 | 8 | ..... | ..... | ..... | 13 | 2 | 15 | 1 | ..... | 1 | 14 | 2 | 16 |
| Medicine | 22 | 2 | 24 | 26 | 2 | 28 | ..... | ..... | ..... | ..... | ..... | ..... | 48 | 4 | 52 | ..... | ..... | ..... | 48 | 4 | 52 |
| Mines | ..... | ..... | ..... | 1 | ..... | 1 | 2 | ..... | 2 | ..... | ..... | ..... | 3 | ..... | 3 | ..... | ..... | ..... | 3 | ..... | 3 |
| Music | 2 | 8 | 10 | 2 | 13 | 15 | ..... | 9 | 9 | 3 | 24 | 27 | 7 | 54 | 61 | ..... | ..... | ..... | 7 | 54 | 61 |
| Pharmacy | 1 | ..... | 1 | 1 | 3 | 4 | 3 | 5 | 8 | 6 | 12 | 18 | 11 | 20 | 31 | ..... | ..... | ..... | 11 | 20 | 31 |
| Phys. Ed. & Athletics | 1 | 11 | 12 | ..... | 11 | 11 | 4 | 17 | 21 | 12 | 25 | 37 | 17 | 64 | 81 | ..... | ..... | ..... | 17 | 64 | 81 |
| Sub-total | 55 | 128 | 183 | 82 | 164 | 246 | 80 | 215 | 295 | 200 | 290 | 490 | 454 | 842 | 1,296 | 17 | 59 | 76 | 471 | 901 | 1,372 |
| Army Spec. Training | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 163 | ..... | 163 | ..... | ..... | ..... | 163 | ..... | 163 |
| Army Spec. Tr. Reserve | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 114 | ..... | 114 | ..... | ..... | ..... | 114 | ..... | 114 |
| U. S. Cadet Nurse Corps | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| TOTAL | 55 | 128 | 183 | 82 | 164 | 246 | 80 | 215 | 295 | 200 | 290 | 490 | 731 | 842 | 1,573 | 17 | 59 | 76 | 748 | 901 | 1,649 |

## D. THE ACADEMIC YEAR (SEPTEMBER TO MAY), 1944-1945

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agr., For., & H. E. | 8 | 37 | 45 | 6 | 36 | 42 | 13 | 30 | 43 | 28 | 53 | 81 | 55 | 156 | 211 | 2 | 2 | 4 | 57 | 158 | 215 |
| Arts and Sciences | 14 | 57 | 71 | 19 | 79 | 98 | 43 | 150 | 193 | 176 | 236 | 412 | 252 | 522 | 774 | 6 | 56 | 62 | 258 | 578 | 836 |
| Education | 2 | 15 | 17 | 1 | 15 | 16 | ..... | ..... | ..... | ..... | ..... | ..... | 3 | 30 | 33 | ..... | 3 | 3 | 3 | 33 | 36 |
| Engineering | 11 | ..... | 11 | 22 | 1 | 23 | 26 | 3 | 29 | 99 | 2 | 101 | 158 | 6 | 164 | 3 | ..... | 3 | 161 | 6 | 167 |
| Graduate | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 39 | 59 | 98 | 9 | 23 | 32 | 48 | 82 | 130 |
| Journalism | ..... | 9 | 9 | 2 | 9 | 11 | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 18 | 20 | 1 | ..... | 1 | 3 | 18 | 21 |
| Law | 5 | ..... | 5 | 4 | 1 | 5 | 3 | 2 | 5 | ..... | ..... | ..... | 12 | 3 | 15 | 2 | ..... | 2 | 14 | 3 | 17 |
| Medicine | 50 | 3 | 53 | 29 | 1 | 30 | ..... | ..... | ..... | ..... | ..... | ..... | 79 | 4 | 83 | ..... | ..... | ..... | 79 | 4 | 83 |
| Mines | ..... | ..... | ..... | 1 | ..... | 1 | 2 | ..... | 2 | 3 | ..... | 3 | 6 | ..... | 6 | ..... | ..... | ..... | 6 | ..... | 6 |
| Music | 2 | 8 | 10 | 1 | 16 | 17 | ..... | 11 | 11 | 6 | 27 | 33 | 9 | 62 | 71 | ..... | 1 | 1 | 9 | 63 | 72 |
| Pharmacy | 2 | 2 | 4 | 1 | 3 | 4 | 7 | 4 | 11 | 12 | 16 | 28 | 22 | 25 | 47 | ..... | ..... | ..... | 22 | 25 | 47 |
| Phys. Ed & Athletics | 2 | 12 | 14 | ..... | 10 | 10 | 1 | 17 | 18 | 24 | 22 | 46 | 27 | 61 | 88 | ..... | ..... | ..... | 27 | 61 | 88 |
| Sub-total | 96 | 143 | 239 | 86 | 171 | 257 | 95 | 217 | 312 | 348 | 356 | 704 | 664 | 946 | 1,610 | 23 | 85 | 108 | 687 | 1,031 | 1,718 |
| Army Spec. Training | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 253 | ..... | 253 | ..... | ..... | ..... | 253 | ..... | 253 |
| Army Spec. Tr. Reserve | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 319 | ..... | 319 | ..... | ..... | ..... | 319 | ..... | 319 |
| U. S. Cadet Nurse Corps | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 20 | 20 | ..... | ..... | ..... | ..... | 20 | 20 |
| TOTAL | 96 | 143 | 239 | 86 | 171 | 257 | 95 | 217 | 312 | 348 | 356 | 704 | 1,236 | 966 | 2,202 | 23 | 85 | 108 | 1,259 | 1,051 | 2,310 |

## E. THE SUMMARY FOR 1944-1945

| | Senior | | | Junior | | | Sophomore | | | Freshman | | | Total | | | Special | | | Grand Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | W | T | M | W | T | M | W | T | M | W | T | M | W | T | M | W | T | M | W | T |
| Agr., For., & H. E. | 8 | 45 | 53 | 6 | 36 | 42 | 13 | 30 | 43 | 28 | 53 | 81 | 55 | 164 | 219 | 2 | 3 | 5 | 57 | 167 | 224 |
| Arts and Sciences | 18 | 70 | 88 | 26 | 84 | 110 | 50 | 156 | 206 | 187 | 239 | 426 | 281 | 549 | 830 | 6 | 59 | 65 | 287 | 608 | 895 |
| Education | 2 | 26 | 28 | 1 | 20 | 21 | ..... | ..... | ..... | ..... | ..... | ..... | 3 | 46 | 49 | ..... | 6 | 6 | 3 | 52 | 55 |
| Engineering | 16 | ..... | 16 | 21 | 1 | 22 | 27 | 3 | 30 | 103 | 2 | 105 | 167 | 6 | 173 | 3 | ..... | 3 | 170 | 6 | 176 |
| Graduate | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 96 | 157 | 253 | 17 | 58 | 75 | 113 | 215 | 328 |
| Journalism | ..... | 9 | 9 | 3 | 9 | 12 | ..... | ..... | ..... | ..... | ..... | ..... | 3 | 18 | 21 | 1 | ..... | 1 | 4 | 18 | 22 |
| Law | 5 | ..... | 5 | 4 | 1 | 5 | 3 | 2 | 5 | ..... | ..... | ..... | 12 | 3 | 15 | 2 | ..... | 2 | 14 | 3 | 17 |
| Medicine | 50 | 3 | 53 | 29 | 1 | 30 | ..... | ..... | ..... | ..... | ..... | ..... | 79 | 4 | 83 | ..... | ..... | ..... | 79 | 4 | 83 |
| Mines | 1 | ..... | 1 | 1 | ..... | 1 | 2 | ..... | 2 | 3 | ..... | 3 | 7 | ..... | 7 | ..... | ..... | ..... | 7 | ..... | 7 |
| Music | 2 | 12 | 14 | 1 | 16 | 17 | ..... | 11 | 11 | 6 | 27 | 33 | 9 | 66 | 75 | ..... | 3 | 3 | 9 | 69 | 78 |
| Pharmacy | 2 | 2 | 4 | 1 | 3 | 4 | 7 | 5 | 12 | 12 | 16 | 28 | 22 | 26 | 48 | ..... | ..... | ..... | 22 | 26 | 48 |
| Phys. Ed. & Athletics | 2 | 12 | 14 | ..... | 10 | 10 | 1 | 17 | 18 | 24 | 22 | 46 | 27 | 61 | 88 | ..... | ..... | ..... | 27 | 61 | 88 |
| Summer Session Special | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 | 13 | 15 | 2 | 13 | 15 |
| Sub-total | 106 | 179 | 285 | 93 | 181 | 274 | 103 | 224 | 327 | 363 | 359 | 722 | 761 | 1,100 | 1,861 | 33 | 142 | 175 | 794 | 1,242 | 2,036 |
| Army Spec. Training | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 396 | ..... | 396 | ..... | ..... | ..... | 396 | ..... | 396 |
| Army Spec. Tr. Reserve | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 464 | ..... | 464 | ..... | ..... | ..... | 464 | ..... | 464 |
| U. S. Cadet Nurse Corps | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 36 | 36 | ..... | ..... | ..... | ..... | 36 | 36 |
| TOTAL | 106 | 179 | 285 | 93 | 181 | 274 | 103 | 224 | 327 | 363 | 359 | 722 | 1,621 | 1,136 | 2,757 | 33 | 142 | 175 | 1,654 | 1,278 | 2,932 |

## EXTENSION AND SHORT COURSES*

| | | | |
|---|---|---|---|
| Courses at Morgantown: | | | |
| Coal Mining | 17 | ..... | 17 |
| Dairy School | 85 | ..... | 85 |
| Fire School | 127 | ..... | 127 |
| Music Non-credit Students | 10 | 23 | 33 |
| Total Enrollment at Morgantown | 1,893 | 1,301 | 3,194 |
| University Extension of Collegiate Grade | 88 | 140 | 228 |
| Extension | | | |
| Coal Mining | 53 | ..... | 53 |
| Dairy Farming | 455 | ..... | 455 |
| Electricity | 32 | ..... | 32 |
| Engineering Fundamentals | 40 | 64 | 104 |
| Engineering Science and Management War Training | 265 | 96 | 361 |
| Fire Service | 267 | ..... | 267 |
| Foremanship | 224 | ..... | 224 |
| Maintenance | 16 | ..... | 16 |
| Mining | 864 | ..... | 864 |
| Oil and Gas | 72 | ..... | 72 |
| GRAND TOTAL | 4,269 | 1,601 | 5,870 |

*April 1, 1944, to March 31, 1945, inclusive.

# THE GEOGRAPHICAL DISTRIBUTION OF RESIDENT ENROLLMENT 1944-45

## By States and Foreign Countries

| | | | |
|---|---|---|---|
| Alabama | 2 | Nevada | 1 |
| Arkansas | 10 | New Hampshire | 1 |
| California | 36 | New Jersey | 34 |
| Colombia | 1 | New Mexico | 1 |
| Colorado | 2 | New York | 122 |
| Connecticut | 14 | North Carolina | 4 |
| District of Columbia | 13 | North Dakota | 1 |
| Florida | 1 | Ohio | 248 |
| Georgia | 9 | Oklahoma | 9 |
| Hawaii | 1 | Oregon | 3 |
| Idaho | 1 | Pennsylvania | 114 |
| Illinois | 22 | Puerto Rico | 3 |
| Indiana | 105 | Rhode Island | 2 |
| Iowa | 14 | South Carolina | 1 |
| Kansas | 6 | South Dakota | 2 |
| Kentucky | 42 | Tennessee | 8 |
| Louisiana | 10 | Texas | 27 |
| Maine | 1 | Utah | 2 |
| Maryland | 11 | Vermont | 3 |
| Massachusetts | 17 | Virginia | 10 |
| Michigan | 18 | Washington | 6 |
| Minnesota | 7 | West Virginia | 1,961 |
| Mississippi | 2 | Wisconsin | 6 |
| Missouri | 11 | | |
| Montana | 2 | | |
| Nebraska | 5 | TOTAL | 2,932 |

## By West Virginia Counties

| | | | |
|---|---|---|---|
| Barbour | 32 | Mingo | 20 |
| Berkeley | 20 | Monongalia | 587 |
| Boone | 5 | Monroe | 10 |
| Braxton | 24 | Morgan | 6 |
| Brooke | 20 | Nicholas | 25 |
| Cabell | 27 | Ohio | 64 |
| Calhoun | 2 | Pendleton | 4 |
| Clay | 17 | Pleasants | 6 |
| Doddridge | 8 | Pocahontas | 18 |
| Fayette | 37 | Preston | 76 |
| Gilmer | 10 | Putnam | 10 |
| Grant | 4 | Raleigh | 59 |
| Greenbrier | 23 | Randolph | 23 |
| Hampshire | 13 | Ritchie | 14 |
| Hancock | 41 | Roane | 11 |
| Hardy | 5 | Summers | 5 |
| Harrison | 109 | Taylor | 37 |
| Jackson | 14 | Tucker | 11 |
| Jefferson | 6 | Tyler | 14 |
| Kanawha | 204 | Upshur | 12 |
| Lewis | 27 | Wayne | 9 |
| Lincoln | 3 | Webster | 12 |
| Logan | 19 | Wetzel | 10 |
| McDowell | 36 | Wirt | 4 |
| Marion | 80 | Wood | 40 |
| Marshall | 30 | Wyoming | 11 |
| Mason | 1 | | |
| Mercer | 33 | | |
| Mineral | 13 | TOTAL | 1,961 |

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